

# **Quarterly Monitoring Report** 4<sup>th</sup> **Quarter 2005**

L.E. Carpenter & Company Borough of Wharton Morris County, New Jersey

USEPA ID No. NJD002168748

February 2006

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# Section 1 Introduction

RMT, Inc. (RMT), on behalf of our client, has prepared this Quarterly Monitoring Report for the L.E. Carpenter and Company (LEC) ("site") located at 170 North Main Street, Borough of Wharton, Morris County, New Jersey (Figure 1). Quarterly monitoring events are performed at the site to comply with paragraph 35 of the 1986 Administrative Consent Order (ACO) issued to LEC by the New Jersey Department of Environmental Protection (NJDEP). We provide a summary of activities completed during the fourth quarter of 2005 (4Q05), including but not limited to, the completion of source reduction remedial activities as outlined in the NJDEP and United States Environmental Protection Agency (USEPA) approved Remedial Action Work Plan (RAWP) and response to RAWP comment documents dated September and November 2004, the initial submittal of the Post Remedial Monitoring Plan, and the continued quarterly Monitored Natural Attenuation (MNA) groundwater monitoring in the MW19/Hot Spot 1 Area located at the northwest corner of the site.

We have certified this report in accordance with requirements outlined in N.J.A.C 7:26E-1.5 (Appendix A).

RMT conducted the following tasks during the 4Q05:

- Response to regulatory comments regarding the 3<sup>rd</sup> Quarter 2005 (3Q05) Monitoring Report Reference Section 1).
- Quarterly monitoring of both the MW19/Hot Spot 1 area and adjacent surface water bodies (i.e., Rockaway River and drainage channel) as required under the 1986 ACO, and as proposed in the Post Remedial Monitoring Plan (PRMP), and various regulatory correspondence (Reference Sections 2 and 3, and Figures 3 and 4).
- Preparation of workplan to evaluate soil vapor intrusion in the MW19/Hot Spot 1 area (Reference Section 4).

Discussion of these activities is provided in the referenced sections.

## 1.1 Response to Regulatory Review of the 3<sup>rd</sup> Quarter 2005 Monitoring Report

Responses to the NJDEP comment letter received by LEC on December 27, 2005 (Appendix B) are presented in the following sections:

#### 1.1.1 General Comments

- LEC continues to tabulate all Natural Attenuation parameters that are collected each quarter. A discussion of these parameters has been included in Section 2.4.2 of this report and will continue to be monitored and discussed each quarter.
- We agree groundwater contamination remains in the near vicinity of monitoring wells MW-19 and MW-19-5. However, its persistence is likely to be very localized as a function of residual soil contamination existing in the area between MW-19 and MW-19-5. This area is evidenced by data contained in the 1987 Roy F. Weston report that documents soil removal and post excavation soil sampling activities in the MW-19 area (see Section 4.4 in this report). Total benzene, toluene, ethylbenzene, and xylenes (BTEX) trend data for MW-19 (see charts in Appendix C) show that MW-19 is located on the west (upgradient) edge of the area most likely to contain residual vadose zone contamination because overall concentrations have steadily declined at the MW-19 monitoring location over time. The trend chart for MW-19-5 shows that this well is likely located within or just downgradient from residual soil contamination because there is no obvious downward trend in total BTEX concentrations at this monitoring location. The upward "spikes" of total BTEX appear to be related to seasonal infiltration events as well as water table fluctuations. We provide additional discussion on the persistence of these contaminants in Sections 2.4, and work proposed to further address this issue in Section 4.4 of this report.
- The specific downgradient groundwater flow direction at this site has been shown to be very consistent over time along a north-northeastward flow-path direction. However, the addition of monitoring wells MW-19-10 and MW-19-11 have resulted in groundwater elevation contours that suggest the influence of the Rockaway Valley Regional Sewerage Authority (RVRSA) regional interceptor sewer on groundwater elevations is very localized. In addition, it appears that slight changes in groundwater elevations results in very localized shifts (on the order of 5-10 feet) in groundwater flow direction. This is most likely a function of the very small area being examined combined with the heterogeneous nature of shallow soils. For example, groundwater elevation contours calculated for the fourth quarter event described in this report (see Section 2.3) show slightly shifted elevation contours (as compared to previous quarters) that show MW-19-7 during that event is more directly downgradient from the small area of residual soil contamination. For that reason, concentrations for this quarter in MW-19-7 are higher than previously detected. Based on an evaluation of groundwater contours from all quarterly events since installation of MW-19-11, we have adjusted the location for the proposed MW-19-12 monitoring well as shown in this report. This location will serve a dual purpose 1) assuring that complete definition of the downgradient extent of groundwater contamination is fully defined, as well as 2) to evaluate any potential

for expedited transport around the sand/gravel bed of the regional sewer line. Thus, LEC believes that any remaining questions regarding groundwater flow and transport pathways will be resolved following the installation and completion of the soil vapor investigation work (Section 4.4) and installation of MW-19-12 (see Section 4.3).

- According to the NJDEP's Vapor Intrusion (VI) Guidance Document (October 2005), a VI evaluation must be completed if a receptor is within 30 feet of a BTEX plume (or within 100 feet if product is <u>present</u>). RMT has used oil-water interface probes in the most contaminated monitoring wells within the MW-19/Hot Spot 1 area (e.g., MW-19, MW-19-5, and MW-19-7) and has never detected any product in any well. In addition, groundwater monitoring results show that all individual BTEX concentrations are well below each parameters solubility limit. Therefore, the 100-foot criterion does not apply. In addition, based on data from wells MW-19-7, MW-19-8, and MW-19-D no vapor intrusion issues exists with respect to the residences on the north side of Ross Street.
- Groundwater monitoring results from 4Q05 show no concentrations of any BTEX constituent above the generic VI screening levels. However, because historical concentrations of toluene and total xylenes have been at levels above the generic VI screening level, and based on the concentration trend diagram for MW-19-5 these constituents can be expected to be above screening levels at some future monitoring event, LEC has included a soil vapor intrusion evaluation work plan to evaluate the LEC building on the south side of Ross St. (Section 4.4).

#### 1.1.2 Specific Comments

- Groundwater sample results from the 3<sup>rd</sup> quarterly sampling and testing of groundwater from MW-19 and MW-19-5 did show an increase in contaminants over the previous two quarters. However, as described above and in Section 2.4 below, the contaminant levels in both of these wells were lower than 3<sup>rd</sup> Quarter 2004, just a year prior (see trend plots in Appendix E). The question of whether active remediation should be considered for the MW-19 area will not be addressed until completion of the soil vapor intrusion evaluation and a verified reproducible downgradient clean zone has been established in greater detail.
- SW-R-6 will be added to the quarterly monitoring protocol starting 1st Quarter 2006 (1Q06), as defined by the PRMP.
- LEC anticipates installing the proposed MW-19-12 during the same mobilization as the construction of the new Post-Remediation monitoring well network. This work will be performed after NJDEP and USEPA approve the PRMP.

## Section 2 MW19/Hot Spot 1 Groundwater Monitoring

## 2.1 Implementation of the Revised Monitored Natural Attenuation Protocol

In a letter dated January 15, 2004, USEPA requested LEC implement the approved May 2001 MNA workplan. Prior to that time, LEC implemented only the low-flow sampling protocols outlined in the MNA workplan. During the second quarter 2004 (2Q04) sampling event, LEC began implementing all aspects of the MNA workplan (e.g., low flow sampling, full MNA analysis etc). During the January 6, 2005 preconstruction meeting, USEPA requested quarterly MNA activities be continued in the MW19/Hot Spot 1 area until the source reduction remedial action was complete and a new site-wide monitoring well network was installed. In a letter dated January 13, 2005, RMT revised the MNA monitoring program due to the modifications made to the LEC site groundwater monitoring network. A copy of the revised MNA sampling protocol was presented as Appendix D in the 1st quarter 2005 (1Q05) monitoring report. This revised MNA monitoring protocol will be implemented quarterly at LEC until an NJDEP and USEPA approved site-wide monitoring well network has been installed, and a sampling plan developed and approved.

### 2.2 Sampling Methodology

RMT conducted the 4Q05 groundwater monitoring activities October 24 thru October 28, 2005. Historically, we performed groundwater monitoring in accordance with the procedures contained in the NJDEP's Field Sampling Procedures Manual dated May 1992 (Revised August 2005). However, in second quarter 2002 (2Q02) we initiated groundwater monitoring using the low-flow methodology outlined in our May 2001 MNA workplan. The MNA workplan was approved by NJDEP on January 24, 2002. Although the sampling was performed using low-flow methods (i.e., QED bladder pump system with disposable Teflon bladders as described in the approved MNA workplan Quality Assurance Project Plan (QAPP)), the remaining parts of the MNA workplan (e.g., full analysis of each sample for MNA specific parameters) had not yet been initiated. As outlined in the comments received from USEPA on January 15, 2004 following their review of the third quarter 2003 (3Q03) monitoring report, LEC began implementing the additional portions of the MNA workplan during the 2Q04 sampling event. In 1Q05, RMT implemented the revised MNA monitoring protocol, and performed the event in

accordance with the approved MNA workplan. Locations of the monitoring wells remaining at LEC following the abandonment activities completed in fourth quarter 2004 (4Q04) to facilitate the source reduction remedial action, along with the monitoring wells utilized in the quarterly MNA monitoring of the MW19/Hot Spot 1 Area are shown on Figure 2.

A sample duplicate, a trip blank, field (atmosphere) blank, a matrix spike/matrix spike duplicate (MS/MSD), and a rinsate blank were collected to satisfy Quality Assurance/Quality Control (QA/QC) requirements outlined in the QAPP. The trip blank was prepared by the laboratory and remained with the sample containers until the samples were returned to the laboratory where they were analyzed for BTEX. The duplicate was collected from monitoring well MW-19-2 (duplicate sample No. Dup-01), and was analyzed for BTEX, di(2-ethylhexyl)phthalate (DEHP), and MNA parameters. The rinsate blank was collected by circulating triple distilled water through the cleaned bladder pump assembly to verify the decontamination procedures were adequate. Any sampling equipment used at each well was decontaminated prior to each use utilizing an environmental detergent (Alconox) and clean water wash followed by a distilled water rinse. The field (atmosphere) blank was taken by opening a bottle of unpreserved de-ionized water provided by the laboratory, leaving the bottle open during the sampling of one well, and pouring that water directly into clean sample bottles with added preservative also provided by the laboratory. RMT submitted all samples to Lancaster Laboratories, Inc. (Lancaster), located in Lancaster, Pennsylvania for BTEX, DEHP, and MNA parameter analysis per the current MNA groundwater monitoring protocol (State of New Jersey Lab Certification No. PA011).

#### 2.3 Groundwater Elevations and Flow Direction

On October 26, 2005, RMT measured static groundwater levels from the 22 different locations (Table 1) outlined in the revised MNA protocol (1Q05 Monitoring Report; Appendix D). RMT used this data to calculate groundwater elevations and evaluate the groundwater flow pattern in the shallow aquifer system.

Figure 3 displays the MW19/Hot Spot 1 Area shallow groundwater elevation contours, and indicates that groundwater flow direction in the shallow aquifer is likely influenced by the presence of the 24-inch Rockaway River Regional Interceptor Sewer, which is encased in a gravel-lined trench oriented roughly parallel to Ross Street. The data shows the shallow groundwater flow direction is generally similar to that observed historically (generally toward the northeast). Data continue to suggest that MW-19-11 is not directly downgradient from the leading edge of groundwater contamination, and it is possible that constituents of concern (COC) could have migrated further northeasterly between wells MW-19-8 and MW-19-11.

From a regional flow standpoint, overall flow is controlled by the Washington Forge Pond and the Rockaway River. The Rockaway River eventually captures groundwater from MW-19/Hot Spot 1 area, even though it is locally influenced by the Regional Interceptor Sewer.

Because groundwater flow direction is important to the discussion of contaminant distribution and natural attenuation in the following sections of this report, and because details of groundwater flow paths in the MW-19 area have changed due to installation of new wells, LEC has performed a detailed analysis of the evolution of MW-19/Hot Spot 1 area groundwater flow data and associated patterns. A summary of groundwater elevation contours from 2001 to present is shown on Figure 6.

Before about 2001, groundwater flow in the MW-19/Hot Spot 1 area was generally thought to be northward based on groundwater contours generated for the whole site. Data from MW-19-8 suggested that if a northward component of flow existed, contamination was naturally attenuating to non-detect before it could complete the migration pathway to MW-19-8. Concern over potential northward flow and potential deeper flow under the regional sewer led to the installation of MW-19-D, but data from this deep well verified the overall upward vertical hydraulic flow potential at the site and non-detect data showed that contamination was not migrating under and north of the regional sewer line.

Groundwater contour maps for each MW-19 area groundwater sampling event since the fourth quarter of 2001 (4Q01)(Reference Figure 6) were generated based on a detailed evaluation specific to the MW-19/Hot Spot 1 area (i.e., more detailed than the previous site-wide contour maps). These evaluations showed there was a strong northeastwards trend of groundwater flow. Further evaluation revealed the presence of the regional sewer line, which supported the northeasterly flow component because regional sewer as-built plans showed the sewer line was bedded with coarse-grained sand that intersected the water table just west of MW-19-D. All groundwater contour maps generated since that time continue to show a consistent north/northeast flow direction and generally confirms a flowpath traversing from MW-19 to MW-19-5 to MW-19-7 (this flowpath is also supported by the groundwater analytical data as described below). All of these maps verify the regional sewer line imparts localized control on shallow groundwater hydraulics.

More recently wells MW-19-10 and MW-19-11 were installed at locations that were previously determined to be downgradient from the residual source area. Although groundwater contours using data from the new wells still show a regional sewer influence and a north/northeastward flow direction, the influence appears to be more localized such that flow lines from the residual source area curve slightly more northwards and do not continue to follow the sewer lines more eastward trend. In addition, the slight changes in groundwater contours resulting from the new wells shows that the newer wells are not downgradient from the residual source as had been

shown by the groundwater contours generated before new well installations. This analysis was used to adjust the location for the new proposed well in order to both assure a well-placed downgradient monitoring location and provide data regarding potential expedited flow through the regional sewer coarse-grained backfill.

#### 2.4 Delineation of Groundwater Contamination

#### 2.4.1 Contaminants of Concern (COC)

Table 2 summarizes concentrations of BTEX and DEHP for all of the MW-19/Hot Spot 1 area MNA groundwater monitoring wells. The lateral distribution of total BTEX compounds are shown on Figure 4. RMT sampled groundwater from the MW-19/Hot Spot 1 area wells between the dates of October 26 and 27, 2005. Corresponding analytical laboratory reports and field sampling data are presented as Appendix D and Appendix E respectively.

The New Jersey Groundwater Quality Standard (NJGWQS) for DEHP is not exceeded in any of the sampled monitoring wells. Toluene, and total xylenes exceed the NJGWQS of 1000  $\mu$ g/L and 40  $\mu$ g/L, respectively, in groundwater collected from MW-19 and MW-19-7. Groundwater sampled from MW-19-7 also exceeded the NJGWQS for benzene (1  $\mu$ g/L) and ethylbenzene (700  $\mu$ g/L). Furthermore, monitoring well MW-19 slightly exceeded the NJGWQS for benzene.

The overall concentrations of COC in MW-19-5 are greatly reduced for 4Q05 compared to data from the third quarterly event. This is most likely the result of timing of major infiltration events (rainfall) and fluctuations in groundwater elevations between second, third, and fourth quarters (see trend chart in Appendix C).

MW-19 is located close to the former 10,000-gallon underground storage tanks (UST) (UST's E-3 and E-4) that were likely responsible for the resulting DEHP and BTEX constituents in shallow groundwater. These former UST's are no longer a continuing source for DEHP and BTEX contamination in this area because LEC removed them in 1991 along with some of the nearby impacted soils (as shown on Figure 5). In addition, the LEC printing processes and material storage practices that occurred in Building 9 that may have resulted in releases of both DEHP and BTEX were stopped in 1987. However, residual soil contamination between MW-19 and MW-19-5 were reportedly left in place (Figure 5), and water-table fluctuations as well as major infiltration events are likely responsible for observed variations of the dissolved groundwater contaminants being detected currently (Appendix C).

No BTEX or DEHP were detected in the recently installed MW-19-11. However, as described above, for the fourth time since installed, data show northeasterly groundwater flow shifts slightly more to the north between MW-19-7 and MW-19-11. Thus, data continues to suggest that MW-19-11 is not directly downgradient from the leading edge of groundwater contamination. Although from a strict hydraulic standpoint it is possible that COC could have migrated further northeasterly than shown by isoconcentration contours (between wells MW-19-8 and MW-19-11), it is also possible that COC in groundwater in the MW-19 area are not migrating substantially further than shown on Figure 4. The latter is more probable based on an evaluation of the trend charts shown in Appendix C. The charts show that downgradient migration is probably limited to the near vicinity of MW-19-7 because the bulk of past monitoring events show that MW-19-7 is directly downgradient from MW-19-5 (as described above), and the concentrations in MW-19-7 are shown to rise only slightly following relatively large upward spikes in COC concentration in MW-19-5. The COC plume appears to exist under relatively equilibrium conditions (as described further below during the discussion of natural attenuation) although effected by short-lived pulses of contaminant flow which reaches its maximum distance following major infiltration and water table fluctuation events. Nevertheless, an additional monitoring well is recommended as described in Sections 2.3 and 4.3 (and as shown on Figure 3) in order to verify this scenario and assure that COC are not migrating across Ross Street or along the regional sewer line.

Figure 4 shows isoconcentration contours for total BTEX levels in parts per million (ppm or mg/L). The contours were constructed by taking in to account total concentrations together with particle flow-paths that would occur normal to the groundwater elevation contours. The distribution of total BTEX defined by the isoconcentration contours is consistent with the groundwater flow direction defined by the groundwater elevation contours.

BTEX and DEHP were again not detected in MW-19-9D (Table 2). This continues to indicate there is no migration of these constituents downward and to the north under Ross Street and the regional interceptor sewer. In addition, the lack of downward migration of contaminants is evidenced by the upward vertical hydraulic gradient as demonstrated by historical groundwater head data from shallow wells compared to nearby deep wells. This upward vertical gradient is consistent with all other former deep/shallow well clusters across the site and is probably influenced by the hydraulic head induced by the Washington Pond Reservoir, and regional discharge to the Rockaway River. These findings are consistent with an earlier RMT prediction of an upward vertical gradient for this location based on nearby piezometers GEI-2I and GEI-

2S, and other upward vertical gradients observed across the site. The Washington Forge Pond (at an elevation of approximately 640 feet), and the Rockaway River act as constant head boundaries, and together comprise a regional aquifer discharge area.

LEC will continue to conduct quarterly groundwater monitoring in this area as part of the revised MNA quarterly groundwater-monitoring program.

#### 2.4.2 MNA Parameters

Tables 3 and 4 summarize the MNA laboratory analytical and field data respectively. The current quarterly groundwater monitoring program, as a result of recent modification to the LEC site groundwater monitoring well network, was revised on January 13, 2005, and put into affect for 1Q05 sampling. The sampling and testing was done in accordance with the revised MNA sampling protocol presented as Appendix D in the 1Q05 monitoring report.

Natural attenuation (NA) of petroleum hydrocarbons via biodegradation (also known as intrinsic bioremediation) has been documented to be a universal phenomenon in that it occurs at 100% of sites with BTEX hydrocarbon contamination, and is found to be protective at >80% of those sites (Wiedemeier, 1997). Given the low concentrations exhibited over most of the sampling history for MW-19-7 (relative to MW-19-5), and results of NA parameter testing (described in more detail below), LEC believes that intrinsic bioremediation is likely protective of the environment at the Wharton site.

The main difference that exists with respect to distribution of contaminants at various sites is related to the distance contaminants migrate before an "equilibrated" zone of degradation occurs. Because the data for MW-19-5 shows increased mass flux of contaminants from vadose to dissolved phase as a function of infiltration and water table fluctuation, and because hydraulic data suggests that MW-19-7 is not always **directly** downgradient from the zone of residual soil contamination, another well (MW-19-12) is proposed to assure that the full lateral extent of the plume (which we believe exists largely under equilibrium conditions) is known.

Note that MW-19-7 did not appear to be directly downgradient during the third quarter 2004 (3Q04) (August, 2004) and the 3Q05 (July, 2005) events, which is likely the reason that concentrations were non-detect or just slightly elevated above detection for those two events. However, it is also important to note that often when concentrations from the residual source area (currently represented mostly by results from MW-19-5) spike upwards (as in the 2Q02 and 2Q04 events), concentrations also rise, but remain relatively low at MW-19-7, which based on the groundwater contours for those events

was directly downgradient from MW-19-5. This supports the idea that the zone of dissolved groundwater contamination that is elevated above NJDEP cleanup criteria and is sourced from infiltration through residual soil contamination in the vadose zone is very limited in extent.

The following is an expanded discussion of NA parameter testing results that supports the occurrence of intrinsic bioremediation within the MW-19/Hot Spot 1 area.

Where NA processes are present, groundwater contamination stops migrating at some finite distance from the source because biodegradation prevents plume expansion once relative equilibrium conditions have been achieved with respect to microbially mediated processes. Based on isoconcentration maps from the past two years and the data in Table 2, it appears that the size and shape of the plume have remained relatively constant. At the upgradient edge of residual soil contamination MW-19 shows clear evidence of significant concentration reductions over time. Within or immediately adjacent to the downgradient edge of residual soil contamination, MW-19-5 shows variable concentrations over time related to infiltration and water table fluctuation events. Further downgradient from the residual soil contamination MW-19-7 shows the least amount of BTEX concentrations and the highest concentrations of various NA parameters that are produced as a function of biodegradation.

Numerous researchers have shown that BTEX biodegrades via aerobic respiration, denitrification, manganese reduction, iron (III) reduction, sulfate reduction, and methanogenesis. Therefore, indicator parameters (Tables 3 and 4), such as iron, dissolved oxygen, sulfate, methane, and nitrate, that the microorganisms need and use to biodegrade petroleum hydrocarbons can be monitored and evaluated between monitoring wells that are upgradient, downgradient, or within the plume area itself. The low concentrations of sulfate and nitrate observed within the plume (e.g., MW-19-5), as compared to upgradient concentrations (e.g., MW-19-1), are positive evidence biodegradation is taking place in the MW-19/Hot Spot 1 area. In addition, several other parameters, such as CO2, alkalinity, methane, and ferrous iron, are produced by the same microorganisms during contaminant degradation and are also being monitored and tracked across the site. Within the MW-19/Hot Spot 1 plume area, the concentrations of all four previously mentioned parameters are significantly higher than compared to background concentrations. For example, biodegradation via methanogenesis is clearly demonstrated by a comparison of background (MW-19-1) versus residual source area (MW-19-5) methane concentrations (Table 3). Methane is not detected in the background well, but is elevated within or just downgradient from the residual source area during those times of concentration spikes caused by infiltration

events and/or water table fluctuations (note that methane concentrations decrease significantly during those periods of low concentrations in groundwater within the residual source area). Specifically, methane was detected in MW-19-5 at a level of 1.7 ppm during the 3Q05 event when total BTEX was detected at a concentration of 115.7 ppm. In contrast, methane levels are generally much higher in the next downgradient well, MW-19-7 (average of 6.9 ppm over the period of MNA testing, from 1Q04 through present). These data, together with the trend to much lower total BTEX concentrations in MW-19-7, suggest that biodegradation of BTEX compounds reaches completion a relatively short distance downgradient from MW-19-7.

These data show that intrinsic bioremediation processes are strong and actively working to break down BTEX components related to residual soil contamination. NA parameters will continue to be monitored and as more data is received (including data from the soil gas sampling program and the proposed well) future evaluations will be performed and updates submitted with quarterly monitoring reports.

# Section 3 Surface Water Sampling

#### 3.1 Eastern Drainage Channel

As part of the 4Q05 event, RMT sampled the eastern drainage channel that separates the adjacent Air Products facility from the LEC site and the adjacent Wharton Enterprises property. This sampling was conducted at the request of NJDEP as outlined in their letter dated March 23, 2005. During the fourth quarter sampling event, three locations (SW-D-1, SW-D-2, and SW-D-3) were sampled. Sample SW-D-1 is located at the upstream end (head) of the ditch (Figure 2). Sample SW-D-2 is located just downgradient of the bend around the Air Products facility (Figure 2) adjacent to the area where free product seeps were observed before completion of the source reduction. Sample SW-D-3 is located at the downgradient end of the ditch, just west of the connecting channel that feeds into the Rockaway River (Figure 2). Laboratory testing results for these samples are summarized on Table 5.

No BTEX or DEHP concentrations were detected in the surface water sample collected at background location SW-D-1 (head of the ditch). The surface water sample SW-D-2 was collected in the ditch adjacent to the former seep (recently removed as part of the source reduction) and contained low levels of ethylbenzene and total xylenes ( $0.6 \,\mu\text{g/L}$  and  $2.0 \,\mu\text{g/L}$  respectively). However, both the ethylbenzene and total xylene detections are "J-qualified" meaning it was an estimated value falling between the method detection limit (MDL) and the Limit of Quantitation (LOQ). The downstream surface water sample collected at SW-D-3 also contained low levels of ethylbenzene and total xylene ( $0.4 \,\mu\text{g/L}$  and  $1.4 \,\mu\text{g/L}$  respectively). The ethylbenzene and total xylene detections are also "J-qualified". All concentrations are orders of magnitude below the surface water quality criteria for toxic substances outlined in N.J.A.C 7:9B-1.14.

#### 3.2 Rockaway River

In addition to the drainage channel, RMT also collected two samples in the Rockaway River (Figure 2; SW-R-1 and SW-R-2). River water sample, SW-R-1, was collected near the edge of the river immediately adjacent to the location of absorbent booms that were placed in order to prevent any migration of sheen observed on top of quiescent water ponded within the wetland area into the Rockaway river. The other river sample, SW-R-2, was taken directly upstream of where the former absorbent booms were placed and near the staff gauge SG-R3 location.

Sample SW-R-1 was collected near the river edge adjacent to the location where absorbent booms were placed in order to prevent visible product sheen from migrating directly into the river. As discussed in earlier reports, the sheen was discovered in 2004 as a visible coloration on top of quiescent water ponded within the wetland area. Although detectable concentrations of total xylenes, ethylbenzene, and DEHP were detected at this location during the second quarter 2005 (2Q05) event, this location was sampled again in October 2005 as part of this 4Q05 sampling event, and no constituents of concern were detected.

The surface water sample collected in the river at SW-R-2 was also "non-detect" for BTEX and DEHP.

Surface water sampling at the eastern drainage ditch as well as the Rockaway River and Washington Forge Pond will continue to take place during each quarterly monitoring event. Specifics regarding surface water sampling locations, frequency and analytes will be presented in the PRMP.

As outlined in Section 1.2., SW-R-6 will be added to the quarterly monitoring protocol starting 1Q06, as defined by the Post Remedial Monitoring Plan.

### **Section 4**

### Remedial Actions and Future Activities

The following section briefly outlines additional remedial activities completed in 4Q05 and activities anticipated for implementation during 1Q06. The 1Q06 MW-19/Hot Spot 1 sampling activities are tentatively scheduled to be completed in February 2006.

#### 4.1 Source Reduction Construction Project

As we outlined in the final source reduction progress updates dated June 30, 2005 the construction phase of this project is now complete.

A Remedial Action Report (RAR) documenting all source reduction activities was provided to both NJDEP and USEPA for review on week of November 14, 2005. LEC is still awaiting approval of this report.

#### 4.2 Emergency Response Activities

Emergency response activities have been terminated as source reduction activities are now complete. RMT visually inspected these areas during the 4Q05 sampling event (at the same time adjacent surface water samples were collected). RMT did not find any seeps along the ditch and the Rockaway River, and no sheen was observed within these surface water bodies.

#### 4.3 Post Source Reduction Site Monitoring

Discussions were initiated between RMT and both NJDEP and USEPA during 4Q05 regarding the development and installation of the post source reduction site monitoring network per the submitted PRMP. Although NJDEP has indicated the PRMP has been reviewed and approved, a formal review and comment letter is forthcoming. Once that has been received, LEC will begin finalizing the schedule to install the site-wide groundwater monitoring network.

In addition to an adequate array of monitoring wells within and downgradient from the source reduction area, the proposed site monitoring network will include one additional shallow monitoring well proposed for the MW-19/Hot Spot 1 area (Figure 3) based on the localized northeasterly shift in groundwater flow discussed above. The location of the proposed MW-19-12 was approved by the NJDEP in their 3Q05 monitoring report comment letter received by LEC on December 27, 2005; however, the proposed location has been changed slightly to account for new data obtained and discussed herein. This well will be installed at the same

time the new main-site monitoring wells are installed following NJDEP and USEPA approval of the Post-Remediation Groundwater Monitoring Plan.

#### 4.4 Soil Vapor Intrusion Evaluation Work Plan

No free product is present within the MW-19/Hot Spot 1 area. Concentrations of all BTEX constituents are well below the solubility limits for each contaminant and interface probes used in the source area wells have never measured any free product on the water table. Therefore, LEC will abide by the 30-foot distance criterion specified in Section 3.1 of the VI Guidance and proposes the following soil vapor intrusion evaluation work plan for the LEC building on the south side of Ross St.:

- 1. RMT will contract with a NJ Licensed Well Driller to advance temporary sub-slab, near slab, and exterior sampling points utilizing a Geoprobe drill rig to facilitate the collection of soil gas samples within the vadose zone. Each sample will be collected a minimum of 5 feet below ground surface (bgs) but at least 1 foot above the capillary fringe (estimated to be between 5 8 feet below ground in the MW-19 area). Past experience in this area has shown that drilling with a direct-push device such as a geoprobe unit is problematic given the very rocky nature of subsurface soils. However, LEC believes that given cost considerations, and the fact that borings need only advance as little as five feet, that a geoprobe rig will be used to obtain the soil gas samples.
- 2. A total of 10 locations will be sampled: 3 sub-slab samples will be collected from beneath the northwestern part of the LEC building and 3 near slab samples will be collected within 10 feet of the northwest and northeast walls of the same building. In addition, 1 exterior soil gas sample will be collected from between MW-19 and MW-19-6 and 3 exterior soil gas samples will be collected from along the outside of the property fence between MW-19-6 and MW-19-7. Finally, one ambient (background) and one indoor air sample will also be collected. See Figure 5 for proposed soil gas sampling locations.
- 3. All soil gas, indoor air, and ambient air samples will be collected in 1-L stainless steel summa canisters and analyzed according to USEPA Method TO-15.
- LEC intends to execute the vapor intrusion evaluation work plan while on-site for the first quarterly groundwater monitoring event for 2006, tentatively scheduled for late February.
- Following receipt of the laboratory data, a table and/or figure will be included in the first quarter groundwater monitoring report along with appropriate discussion of the findings.

#### Table 1

# L.E. Carpenter and Company (LEC) Borough of Wharton, Morris County, New Jersey Quarterly Groundwater Elevations

			QUARTERLY MEASUREMENT									
· ·			PR	OFESSIONAL SU	RVEY INFORMAT	ION "		<u> </u>	QUA	RTERLY MEASURE	MENT	
WELL LOCATION (8)	WELL TYPE					ELEV	ATION (FT. 1	MSL)	INFORMATION			
(4)	WELLIYPE	BASELINE LO	OCATION (FT)	GEODETIC	LOCATION		Ī			1		
							OUTER	INNER	MEAS.	WATER	WATER	
		(Y) North	(X) East	LATITUDE	LONGITUDE	GROUND	CASING	WELL	DATE	DEPTH	ELEVATION	
GEI-2I	Piezometer	754573.99	470499.76	40 <sup>0</sup> 54' 17.4"	74 <sup>0</sup> 34' 43.1"	635.32	637.75	637.60	26-Oct-05	9.61	627.99	
GEI-2S	Piezometer	754566	470506.18	40° 54' 17.3"	74 <sup>0</sup> 34' 43.0"	634.86	637.27	637.07	26-Oct-05	9:48	627.59	
GEI-3I	Piezometer	754311.79	470453.7	40 <sup>0</sup> 54' 14:8"	74 <sup>0</sup> 34' 43.7"	636.96	639.39	639.25	26-Oct-05	11.70	627.55	
MW-15S	Monitoring Well	754326.58	470891.83	40 <sup>0</sup> 54' 15.0"	74 <sup>0</sup> 34' 38.0"	634.23	636.43	636.17	26-Oct-05	9:34	626.83	
MW-15I	Monitoring Well	754325.8	470901.47	40 <sup>0</sup> 54' 15.0"	74 <sup>0</sup> 34' 37.9"	634.14	636.28	636.06	26-Oct-05	9.31	626.75	
MW-19	Monitoring Well	754537.15	470454.45	40° 54' 17.1"	74 <sup>0</sup> 34' 43.7"	636.22	636.23	635.90	26-Oct-05	8.14	627.76	
MW-19-1	Monitoring Well	754534.52	470427.63	40° 54' 17.0"	74 <sup>0</sup> 34' 44.0"	635.93	635.96	635.64	26-Oct-05	7.61	628.03	
MW-19-2	Monitoring Well	754551.81	470429.56	40 <sup>0</sup> 54' 17.2"	74 <sup>0</sup> 34' 44.0"	636.46	636.50	636.30	26-Oct-05	8.49	627.81	
MW-19-3	Monitoring Well	754539:4	470394.2	40 <sup>0</sup> 54' 17.1"	74 <sup>0</sup> 34' 44:5"	636.97	637.06	636.70	26-Oct-05	8.79	627.91	
MW-19-4	Monitoring Well	754505.39	470432.08	40° 54' 16.7"	74 <sup>0</sup> 34' 44.0"	635.69	635.76	635.43	26-Oct-05	6.97	628.46	
MW-19-5	Monitoring Well	754565.53	470470.75	40 <sup>0</sup> 54' 17.3"	74 <sup>0</sup> 34' 43.5"	635.93	635.93	635.56	26-Oct-05	7.91	627.65	
MW-19-6	Monitoring Well	754578.87	470443.1	40 <sup>0</sup> 54' 17.5"	74 <sup>0</sup> 34' 43.8"	636.17	636.16	635.82	26-Oct-05	8.21	627.61	
MW-19-7	Monitoring Well	754595.66	470501.7	40° 54' 17.6"	74 <sup>0</sup> 34' 43.1"	635.31	635:36	635.00	26-Oct-05	7.58	627.42	
MW-19-8	Monitoring Well	754617.42	470493.65	40 <sup>0</sup> 54' 17.8"	74 <sup>0</sup> 34' 43.2"	635.82	635.82	635.36	26-Oct-05	10.00	625.36	
MW-19-9D	Monitoring Well	754590	470442	40 <sup>0</sup> 54' 17.9"	74 <sup>0</sup> 34' 42.4"	636.39	636.41	636.10	26-Oct-05	13.76	622.34	
MW-19-10	Monitoring Well	754625.75	470590.81	-	. <del>-</del>	634.72	634.81	634.43	26-Oct-05	6.49	627:94	
MW-19-11	Monitoring Well	754617.45	470546.95	40 <sup>0</sup> 54 18.2"	74 <sup>0</sup> 34' 41.0"	634.22	634.26	633.67	26-Oct-05	6.40	627:27	
SG-D1 (1)	Drainage Channel Staff Gauge	754428.57	471240.37	-	· -	625.81	-	-	26-Oct-05	1.48	624.33	
SG-D2 <sup>(1)</sup>	Drainage Channel Staff Gauge	754285.43	471361.24	•	-	626.26	-	-	26-Oct-05	1.25	625.01	
SG-D3 <sup>(1)</sup>	Drainage Channel Staff Gauge	754381.47	471548.31	-	-	625.83	-	-	26-Oct-05	1.73	624.10	
SG-R1	Rockaway River Staff Gauge	754313.99	470408.70	÷		640.92	-	-	26-Oct-05	2.00	638.92	
SG-R2 <sup>(10)</sup>	Rockaway River Staff Gauge	754056.10	470946.46	-	-	628.65	-	- :	26-Oct-05	1.80	626.85	

#### **FOOTNOTES**

- (1) Elevation measured at the top of a 3.33 ft. Staff gauge. Reference elevation (ground) shot at the top of the staff gauge. Water depth based on a visual observation of the water level on the Staff gauge.
- (3) Monitoring points and wells in BOLD included in the quarterly sampling program as outlined in the RMT letter dated January 13, 2005. Depth to water recorded before purging

(4) All "19 series" wells were resurveyed August 8, 2001 at owners request. Wells MW19 through MW19-5 were converted to flush mount wells to allow for through traffic. Professional survey performed by James M. Stewart, Inc., Philadelphia, PA

(6) Horizontal Datum: New Jersey State Plane Coordinate System NAD 83. Vertical Datum: NAVD 88

MW-19

#### TABLE 2 L.E. CARPENTER AND COMPANY (LEC) Borough of Wharton, Morris County, New Jersey

		MW19/Hot	Spot 1 Ground	water Monitoring	g Data		
				ANALYTICAL PARAM	IETERS		
MONITORING WELLS	SAMPLE DATE	QUARTER	Benzene	Ethylbenzene	Toluene	Total Xylenes	Ethyll

)	ANALYTICAL PARAMETERS													
MONITORING WELLS	SAMPLE DATE	QUARTER UNITS		Benzene	Eti	hylbenzene		Toluene	То	tal Xylenes	Ethyl	bis-2- Ethylhexylphthalate (DEHP)		
NEW PROTY ORGANISMATER				ug/i	-	ug/l		ug/i	╫	ug/l	-	ug/l		
NEW JERSEY GROUNDWATER	QUALITY STANDA	ARDS (NJGWQS)		1		700		1,000		40	30			
MW19														
Dilution factor for BTEX 2000	24-Feb-95	1	<	660		1,700	·	110,000		10,000		NR		
Dilution factor for BTEX 100	14-Jun-95	2		150		3,400		140,000		17,000		NS		
Dilution factor 5000 for BTEX & 2 for DEHP; MDL for Benzene 1000 ug/l	24-Apr-98	2	<	1,000		2,850		76,700		14,900		6.6		
Dilution factor for BTEX 500	2-Aug-01	3	<	95		3,000		62,000		17,000		2.9		
Dilution factor for BTEX 1000	6-Jun-02	2	<	200		1,000		30,000		6,000		5.6		
Dilution factor for BTEX 100, Toluene 200	20-Nov-03	4	<	20		1,500		40,000		7,400	J	6.0		
	15-Jun-04	2	<	100		1,400		46,000		6,600	J	4.0		
Dilution factor for BTEX 100, Toluene 500	10-Aug-04	3	_<	20		2,100		56,000		11,000	J	2.0		
Dilution factor for BTEX 50  Lower Grap Water Sample; Dilution factor for BTEX	13-Jan-05	1	<	10	· `	750		18,000		3,600	<	1.0		
Upper Grab Water Sample; Dilution factor for	8-Apr-05	2_	<	1		97		1,300		530	J	3.0		
Upper Grab Water Sample; Dilution factor for Toluene 5	8-Apr-05	2	<	0.2		86		410		430	J	3.0		
Dillution factor for BTEX 200	27-Jul-05	3	<	40.0		1,100		44,000		6,000	J	2.0		
Dillution factor for BTEX 100	27-Oct-05	4	<	20:0		200	1	(10,000	<b>)</b>	1.200	J	5.0		
											<u> </u>			
MW19-1						1				1		<del>                                     </del>		
Dilution factor for BTEX 200	12-Mar-98	1	<	40		219		4,270		1.160		190		
	2-Aug-01	3	<	0.2		1.2	<	0.2	<	0.2		85		
	5-Jun-02	2	<u> </u>	0.22	. <	0.18	<	0.24	->	0.2		0.6		
	19-Nov-03	4	<u> </u>	0.2		0.2	~	0.2	-	0.6	<	0.9		
	15-Jun-04	2	<	0.2	<	0.2		1.7	~	0.6	_	11.0		
	10-Aug-04	3	<	0.2	<	0.2	J	0.6	<	0.6	· <	1.0		
·	13-Jan-05	1	<	0.2	<	0.2	<.	0.2	<	0.6	J	4.0		
Lower Grab Water Sample	8-Apr-05	2	<	0.2	<	0.2	<b>~</b>	0.2	<	0.6	<u> </u>	1.0		
Upper Grab Water Sample	8-Apr-05	2	<	0.2	.<.	0.2	٧	0.2	<	0.6	<	1.0		
	27-Jul-05	3	<	0.2	<	0.2	<b>'</b>	0.2	<	0.6	J	1.0		
	26-Oct-05	4	<	0.2	<	0.2	٧	0.2	<	0.6	J	2.0		
MW19-2														
Dilution factor for BTEX 250	12-Mar-98	1												
Dilution factor for BTEX 2	1-Aug-01	3	<_	50		1,130		9,830		6,010		8.8		
District to DIEXE	5-Jun-02	2	<u> </u>	0.4		21		160		82		16		
	19-Nov-03	4	$\overline{}$	0.22	~	19 0.2		36 0.2		39	<u> </u>	0.4		
	15-Jun-04	2	<del>-</del> -	0.2	<u> </u>	1.2	_<	29.0	<	0.6 4.8	J	1.0		
	10-Aug-04	3	<del>-</del>	0.2		28.0		150.0		100.0	<u> </u>	1.0		
	12-Jan-05	1		0.2	<	0.2	<u> </u>	0.2	<	0.6	J	3.0		
Lower Grab Water Sample	8-Apr-05	2	<	0.2	<	0.2	~	0.2	<del>-</del>	0.6	<del>-</del>	1.0		
Upper Grab Water Sample	8-Apr-05	2	<	0.2	<	0.2	<	0.2		0.6	$\overline{}$	1.0		
	26-Jul-05	3	<	0.2		6.2		40.0		20.0		1.0		
	26-Oct-05	4	<	0.2	J	1.0		2.7		3.3	<	1.0		
	26-Oct-05	4 <sup>duplicate</sup>	<	0.2	J	0.8		2.5		3.0	<	1.0		
MW19-3					·									
				]								<u> </u>		
iài 44 i 2-2	12-Mar-09	4		0.0		7								
iii 44 13-0	12-Mar-98	1 2	<	0.2	<	0.14	<	0.14	<	0.5	<	1.2		
III W 13-3	2-Aug-01	3	<	0.2	<	0.2	<_	0.2	<	0.2	<	0.5		
mw 13-3														

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## TABLE 2 L.E. CARPENTER AND COMPANY (LEC)

Borough of Wharton, Morris County, New Jersey MW19/Hot Spot 1 Groundwater Monitoring Data

					ANA	LYTICAL PARAM	METERS			<del></del>		
MONITORING WELLS	SAMPLE DATE	QUARTER		Benzene	Et	hylbenzene		Toluene	То	tal Xylenes	Ethyl	bis-2- hexylphthalate (DEHP)
	7	UNITS		ug/l		ug/l	1	ug/l	<b>†</b>	ug/l		_ug/l
NEW JERSEY GROUNDWATER	QUALITY STANDA	ARDS (NJGWQS)		1		700		1,000		40		30
MW19-4		r <del>i d</del>		T	<del> </del>		<del>                                     </del>	1	-	1		1
	12-Mar-98	1	<	0.2	<	0.14	<	0.14	<	0.5	<	1.3
	2-Aug-01	3	<	0.2	<	0.2	<	0.2	<	0.2	. <	0.5
	6-Jun-02	2	<	0.22	<	0.18	<del>  `</del>	0.24	\ <del>`</del>	0.2		0.5
	19-Nov-03	4	<	0.2	<	0.2	<del>  </del>	0.2	<	0.6	<	1.0
					1				<u> </u>			1.0
MW19-5							<u> </u>		†**			·
Dilution factor for BTEX 5000	12-Mar-98	1	< -	1,000		1,920		123,000		10.100		42
Dilution factor for BTEX 1000	2-Aug-01	3	<.	190		870		79,000		5.200		3.2
Dilution factor for BTEX 500		1	<	140		300		10,000	-	1.700		1.3
Dilution factor for BTEX 5000, for DEHP 20		2	<del>`</del>	1,100		1,100	-	92,000		6,300	<	9.8
Dilution factor for BTEX 5000, for DEHP 20		2 <sup>duplicate</sup>	<u> </u>	1,100		1.300		92,000		6,900	-	9.4
	19-Nov-03	4	$\overline{}$	0.2	.<	0.2	+ -	4.3	J	0.9	<	0.9
	18-Dec-03		<u> </u>	0.2	<del>  `</del>	3.7		· · · · · · · · · · · · · · · · · · ·	۰			
	16-Jun-04	2	<del>-</del>	100.0	-	1.400	-	240.0 83,000		24.0	<	0.9
<u> </u>	10-Aug-04	3	<del></del>	200.0	-	2.800		140,000	-	7,400	j	1.0
Dilution factor for BTEX 10	13-Jan-05	1		2.0		64.0		-	-	14,000	J	1.0
Dilution factor for BTEX 200, Lower Grab Water							-	3,100.0		340.0	<	1.0
Sample	9-Apr-05	2	<	40.0	╄	1,000.0		27,000.0		5,300.0	J	1.0
Upper Grab Water Sample	9-Apr-05	2	<	0.2	J	0.4		9.5	J	2.3	<	1.0
Dillution factor for BTEX 500	26-Jul-05	3	<_	100.0	-	2,600.0	ļ	100,000.0		13,000.0	<	0.9
	27-Oct-05	4	<	0.2	<b>├</b>	6.8		140.0		37.0	<	1.0
MW19-6				<del>                                     </del>	┼	<del> </del>	ļ	<del> </del>	ļ	<u> </u>		
	45 Nov. 00					<del>-</del>			<u> </u>			
Dilution factor for BTEX 200  Dilution factor for BTEX 2	15-Nov-99	4	<	62		94		3,400		500		32
Distribin factor for BTEX 2	1-Aug-01	3	<	0.4	—	14	<u> </u>	390	<u> </u>	47		28
	5-Jun-02	2	_<_	0.22		1.7	L	13		4.1		2.3
- <u> </u>	18-Nov-03	4	_ <	0.2	<	0.2	J	0.3	<	0.6	J	6
	17-Jun-04	2	_<_	0.2	J	0.4		1.1		1	ل	3.0
	10-Aug-04	3	<	0.2		4.6	<u> </u>	38.0		18	<u> </u>	4.0
Lower Grab Water Sample	13-Jan-05	1	_<_	0.2	-	4.0		36.0		14	J	1.0
Upper Grab Water Sample	9-Apr-05	2	<	0.2	<u> </u>	16.0		160.0		64	· <	1.0
Opper Grab Water Sample	9-Apr-05 26-Jul-05	2	<	0.2	<u> </u>	11.0		74.0		37	_ <_	1.0
	27-Oct-05	3	_<_	0.2	ļ	3.6		27.0		14	J	2.0
	27-UCI-US	4	<	0.2		5.4	<u> </u>	110.0		25	<	0.9
MW19-7					<del></del>	-			· ·			
	15 Nov 00				<u> </u>	<u> </u>						
Dilution factor for BTEX 50 Dilution factor for BTEX 2	15-Nov-99	4	_<_	16	<u> </u>	100		51		1,400	<	4.1
Dilution factor for BTEX 5	1-Aug-01 7-Mar-02	3		6.7		6.6		13		680	<	0.4
Caution lactor for BTEX 5	7-Mar-02 5-Jun-02	1		3	<	1.3	<u> </u>	1.3		250		1.6
<del></del>	19-Nov-03	4		0.48		1.6		27	<u> </u>	27	<	0.4
	16-Jun-04	2	<del>- , : :</del>		J	0.4	J	0.3		460	_J_	1.0
<del></del>		2 duplicate	_ <u>J</u>	2.8	<u> </u>	130.0		2,100.0		630	٠ <	1.0
	16-Jun-04 10-Aug-04		J	4.0	<u> </u>	130.0		2,100,0		610	<	1.0
		3		2.0		1.6		1.3		20	<	1.0
	12-Jan-05	1 duplicate		6.1		90.0		240.0		760	<	1.0
Dilution factor for BTEX 2				2.9		45.0		120.0		380	<b>~</b>	1.0
Dilution factor for BTEX 2	12-Jan-05	1										
ower Grab Water Sample; Dilution factor for BTEX	12-Jan-05 7-Apr-05	2	J	9,5		210.0	•	2,700.0		1,400	~	1.0
	7-Apr-05	2		9,5				2,700.0 5,600.0		1,400	<	1.0
ower Grab Water Sample; Dilution factor for BTEX		2 2	J	9.5 13.0	-	370.0		5,600.0		2,300	<	1.0
ower Grab Water Sample; Dilution factor for BTEX 25 Spper Water Grab Sample; Dilution factor for BTEX 10	7-Apr-05 7-Apr-05	2 2 3		9.5 13.0 2.2	V V	370.0 0.2	J	<b>5,600.0</b> 0.2	J	<b>2,300</b> 2	< <	1.0
ower Grab Water Sample; Dilution factor for BTEX 25 Spper Water Grab Sample; Dilution factor for BTEX 10 Lower Grab Water Sample	7-Apr-05 7-Apr-05 27-Jul-05	2 2		9.5 13.0	< <	370.0	J	5,600.0	J	2,300	<	1.0

# TABLE 2 L.E. CARPENTER AND COMPANY (LEC) Borough of Wharton, Morris County, New Jersey MW19/Hot Spot 1 Groundwater Monitoring Data

					ANAL	YTICAL PARAM	AETERS					
MONITORING WELLS	SAMPLE DATE	QUARTER	ł	Benzene ug/i	Eth	ylbenzene ug/l		Toluene ug/l	Tot	tal Xylenes	Ethyli	bis-2- nexylphthalate (DEHP) ug/l
NEW JEDOEV ODOLINDWITED	OUAL ETV OTANO						+	·	<del>                                     </del>		+	
NEW JERSEY GROUNDWATER	QUALITY STANDA	AHDS (NJGWQS)		1		700		1,000	<u> </u>	40		30
MW19-8									<u> </u>			
Dilution factor for BTEX 50	15-Nov-99	4	_ <	0.31	<_	0.38	<	0.34	<	0.4	. <	4.1
Dilution factor for BTEX 2	1-Aug-01	3		0.5	<	0.2	<	0.2	<	0.2	<	0.4
	5-Jun-02 19-Nov-03	2	<	0.22	<	0.18 0.20	<	0.24	<	0.2	<	0.4
	17-Jun-04	2	<u> </u>	0.20	<	0.20	<u>&lt;</u>	0.20	< <	0.6	< <	0.9 1.0
	11-Aug-04	3	$\overline{}$	0.20	-	0.20	1	0.20	<	0.6	<del>  \</del>	1.0
-	12-Jan-05	1	<del>-</del>	0.20	Ĵ	0.30	\ \{	0.20	\ \ \	0.6	<del>                                     </del>	1.0
	11-Apr-05	2		0.20	<	0.20	<	0.20	<u> </u>	0.6	\ \rightarrow\tau\cdot\tau\cdo	1.0
	27-Jul-05	3	<	0.20	<	0.20	<	0.20	<	0.6	<	1.0
	27-Oct-05	4	<	0.20	<	0.20	<	0.20	<	0.6	<	1.0
MW19-9D	á k **				<del>                                     </del>							
Dilution factor for BTEX 2	1-Aug-01	3	<	0.2	<	0.2	<	0.2	<	0.2		0.5
· · · · · · · · · · · · · · · · · · ·	5-Jun-02	2 4	<_	0.22	<	0.18	<	0.24	<	0.2	<del>  .</del>	1.9
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	19-Nov-03 16-Jun-04	2	<u> </u>	0.20	<u> </u>	0.20	<u> </u>	0.20	<	0.6	J	1.0
	10-Aug-04	3	<u> </u>	0.20	<	0.20	. <.	0.20	< <	0.6 0.6	J   <	2.0 1.0
	13-Jan-05	1	<del>-</del>	0.20	<	0.20	-	0.20	<	0.6	J	1.0
1- N	11-Apr-05	2	<del>-</del> -	0.20	<del></del>	0.20	<del>  \</del>	0.20	~	0.6	<	1.0
	27-Jul-05	3		0.20	~	0.20	1	0.20	~	0.6	~	1.0
	27-Oct-05	4	<	0.20	<	0.20	<	0.20		0.6	\ \{	1.0
MW19-10						ļ						
	17-Jun-04	2	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Aug-04	3 3 <sup>duplicate</sup>	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	11-Aug-04		<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
	12-Jan-05	1	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
Lower Grab Water Sample	9-Apr-05	2	<_	0.2	<_	0.2	<	0.2	<	0.6	<	1.0
Upper Grab Water Sample	9-Apr-05 26-Jul-05	2	<u> </u>	0.2	<	0.2	<u> </u>	0.2	<	0.6	<	1.0
	26-Oct-05	3	< -	0.2	< -	0.2	<	0.2	< <	0.6	<.	1.0
	20 00: 05		<del></del> -	0.2	<u> </u>	0.2		0.2	-	0.6	<_	1.0
MW19-11	-			<del> </del>	<del> </del>		<u> </u>					·
	13-Jan-05	1	<	0.2	<	0.2	<	0.2	<	0.6	< .	1.0
Lower Grab Water Sample	7-Apr-05	2	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
Upper Grab Water Sample	7-Apr-05	2	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
-	26-Jul-05	3	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	26-Oct-05	4	<u> </u>	0.2	<	0.2	<_	0.2	<	0.6	J	1.0
GEI-2I												
GLI-2I	24-Feb-95	4.		0.0			-					222
,	6-Jun-02	2	<u> </u>	0.3	<	0.3	<del> </del>	0.4	<	0.1		27
	0-0011-02		_	0.22	<_	0.18	<	0.24	<	0.2		1.4
GEI-2S			-		<u> </u>							
	24-Feb-95	1	<	8.2		46	<del>                                     </del>	1,500		380		7.6
	25-Mar-98	1		NS		NS		NS	-	NS	В	2.5
	6-Jun-02	2		1.2		2.6		16		5.1		2.4
	18-Dec-03	4	<	0.2	<	0.2	J	0.4	<	0.6	<	1.0
									-	<u></u>		1,19
Atmospheric Blank												
	13-Jan-05	1	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	8-Apr-05	2	<_	0.2	<	0.2	<	0.2	<	0.6	<	1.0
	26-Jul-05	3	<	0.2	<	0.2	<	0.2	<	0.6	٧	1.0
	27-Oct-05	4	<	0.2	<	0.2	٧	0.2	<	0.6	<	1.0

#### TABLE 2

#### L.E. CARPENTER AND COMPANY (LEC)

## Borough of Wharton, Morris County, New Jersey MW19/Hot Spot 1 Groundwater Monitoring Data

					ANALY	TICAL PARAM	ETERS							
MONITORING WELLS	SAMPLE DATE	QUARTER	Benzene		Ethy	/lbenzene	1	Coluene	Tot	al Xylenes	bis-2- Ethylhexylphthalate (DEHP)			
		UNITS		ug/l		ug/l		ug/l		ug/l	1	ug/i		
NEW JERSEY GROUNDWATER	QUALITY STANDA	ARDS (NJGWQS)	1		700		1,000		40			30		
	,										1.			
Rinsate Blank							Ī		<u> </u>					
	14-Jan-05	1	<	0.2	<.	0.2	<	0.2	<	0.6	<	1.0		
, , , , , , , , , , , , , , , , , , ,	9-Apr-05	2	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0		
	27-Jul-05	3	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0		
	27-Oct-05	4	< .	0.2	<	0.2	<	0.2	<	0.6	<	1.0		
Trip Blank			-					,	+					
	13-Jan-05	.1	<	0.2	<	0.2	<	0.2	<b> </b>	0.6		NA		
	9-Apr-05	. 2	<	0.2	<	0.2	<	0.2	<	0.6	1	NA NA		
	27-Jul-05	3	<	0.2	<	0.2	<	0.2	<	0.6	1	NA		
	27-Oct-05	4	<	0.2	<	0.2	<	0.2	<	0.6	1	NA		

#### LEGEND

ug/L = micrograms per liter

NJGWQS = New Jersey Groundwater Quality Standards

ROD: Record of Decision

NA = Not Applicable

NS = Not Sampled

ND: No Detection

NR & Not Rur

Concentration exceeds NJGWQS

B: Analyte also detected in blank

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NOTES

- (1) Low flow sampling initiated 1st quarter 2002
- (2) GEI series wells are piezometers installed by Weston
- (3) GEI series wells, MW-19-3, and MW-19-4 are not sampled under revised groundwater monitoring program effective 1Q05.

J: Estimated value. Value is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)

# L.E.Carpenter and Company (LEC), Borough of Wharton, Morris County, New Jersey MW19/Hot Spot 1 Quarterly Groundwater Monitoring MNA Analytical Data

Well ID	Sampling Event	Heterotrophic Plate Count	Alkalinity to pH 8.3	Alkalinity to pH 4.5	TSS	TDS	Nitrate Nitrogen	Ammonia Nitrogen	Phosphorus (total)	Sulfate <sup>(1)</sup>	Methane
(units)		cfu/ml	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l
MW-19	1Q04	. NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	80	ND .	207	30	589	ND	ND	0.054	3.6 J	150
	3Q04	630	ND	268	30.9	553	ND	ND	0.12	1.7 J	230
	1Q05	350	ND	241	17.2	347	0.22	ND	ND	7.4	230
	2Q05 <sup>L</sup>	390	NS	NS	10.8 J	413	2.8	ND	ND	33.3	3.0 J
	2Q05 <sup>U</sup>	1,400	NS .	NS.	14.8	455	3.2	ND	ND	30.4	2.0 J
	3Q05	3	NS	NS	67.2	1070	0.04	1.3	ND	6	.33
	4Q05	120	NS	NS	23.2	620	0.56	0.88	ND	37.4	19
MW-19-1	1Q04	NS	NS	NS	NS	NO	100	1.0			
191 59-10-1	2Q04	100	ND ND	162	ND ND	NS	NS	NS	NS	NS	NS
	3Q04	49	ND	184	3.2 J	725 928	1.4 3.9	ND .	ND .	32.4	ND
	1Q05	43	ND	152	ND	404	2.1	ND ND	ND ND	35.3	ND.
	2Q05 <sup>L</sup>	410	NS	NS	16.4					27.9	ND
•	2Q05 <sup>U</sup>	350				1,440	2.9	ND	ND	34.1	ND
	3Q05	53	NS	NS_	3.2 J	1,430	2.8	ND	ŇD	32.9	ND
Dilution factor for Nitrate 2	4Q05	240	NS NS	NS	9.2 J	1,140	4.1	ND	ND	39	ND
District lactor for Hitate 2	4000	240	No	NS	12.4	659	4.6	ND	ND	44.2	ND
MW-19-2	1Q04	NS	NS	NS	NC	NC	NO	110	100		
mar 15-E	2Q04	10	ND ND	335	NS 6.0 J	NS 704	NS.	NS	NS NS	NS .	NS
·····	3Q04	87	ND ND	176	6.0 J	916	, ND 0.87	. ND	ND	33.6	1600
·· .· . · · · · · · · · · · · · · · · ·	1Q05	110	ND ND	395	5.2 J	916 568	0.87 0.093 J	ND 0.13 I	ND	23.9	280
	2Q05 <sup>L</sup>	160	ND	ND ND	11.6 J			0.13 J	ND	69.4	26.
	2Q05 <sup>U</sup>	150	ND ND			780	0.62	0.17 J	ND	29.6	ND
<del> </del>	3Q05	150 8	NS NS	ND NS	ND ND	750	0.64	ND	ND ND	29.3	ND
	4Q05	220	NS NS	NS NS	3.2 J	976	1 0.79	0.12 J	ND	27.2	120
	4Q05D	92	NS NS	NS NS	ND ND	864 908	0.78 0.6	ND ND	ND ND	60.3	35
	70000	- JE	ING	140	ND	900	0.6	ND	ND	62.1	49
MW-19-5	1Q04	NS	NS	NS	NS	NS	NS	NS	NO	110	NO
	2Q04	NS	NS	NS NS	NS	NS NS	NS	NS NS	NS NS	NS	NS
	3Q04	180	ND	228	14	942	0.06 J	ND	ND ND	NS 15.7	NS
	1Q05	380	ND	126	3.6 J	174	0.49	ND	ND	15.7	2100
	2Q05 <sup>L</sup>	3000	NS	NS	3.6 J	177	ND	ND ND		15.8	34
	2Q05 <sup>U</sup>	100	NS	NS NS	3.6 J	141			ND.	12	380
	3005	69	NS	NS	6.8 J	463	0.43 ND	ND	ND	8.7	ND
	4Q05	58	NS	NS	ND	144	0.38	ND ND	ND ND	7.7	1700
					ND	1,44	0.30	. ND	שא	12.8	3.8 J
MW-19-6	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	- NC	NO
	2Q04	35	ND	151	10.4 J	1670	1.6	ND ND	ND ND	NS 37.3	NS
	3Q04	1.10	ND	178	18.8	1240	1.1	ND	0.062	38.3	140 140
	1Q05	82	ND	204	11.2 J	544	1.7	ND	ND ND	44	130
	2Q05 <sup>L</sup>	. 23	NS	NS	18	1180	1.3	0.29 J	ND	33.5	44
-	2Q05 <sup>U</sup>	160	NS	NS	ND	1190	1	ND ND	ND ND		
	3Q05	90 .	NS	NS	40.8	1520	1.1	ND ND	ND ND	32.7	96
	4Q05	43	NS	NS	10.8 J	.940	3.5	ND	ND.	35	38
							0.5		IND	47.8	43
MW-19-7	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NC
	2Q04	110	ND	142	6.8 J	2110	0.21	ND ND	ND.	47.2	NS 5200
	2Q04D	88	ND	152	9.2 J	2040	0.21	0.15 J	ND ND	37.3	5400
	3Q04	2000	ND	175	4.4.	1920	1.5	ND	ND ND	64.4	2400
Dilution factor for Methane 250	1Q05	75	ND	200	6.0 J	774	3.2	ND	ND ND	29.1	10,000
Dilution factor for Methane 250	1Q05D	77	ND	.202	7.2 J	754	3.2	ND	ND.	30.5	11,000
	2Q05 <sup>L</sup>	32	NS	NS	54	472	ND	0.50 J	0.45	ND	13,000
	2Q05 <sup>U</sup>	41	NS	NS	48	481	ND	0.35 J	0.32	ND	10,000
	3Q05 <sup>L</sup>	17	NS	NS	45.6	1450	ND	ND ND	0.32	19.2	
	3Q05 <sup>U</sup>	17	NS	NS	31.6	1280	0.22	0.29 J	0.3		2,900
Dilution factor for Methane 250	4Q05	16	NS	NS NS	32	926	0.22	0.29 J	0.1	25.7	1,600
						<u> </u>	3.10	- 0.5	0.23	8.9	7,700
MW-19-8	2Q04	NS.	NS	NS	NS	NS	NS	NS	NS	NIC	NC
1	2Q04	45	ND	143	14.4	1120	ND ND	ND ND	0.15	NS	NS
1	3Q04	15	ND	152	7.2 J	573	ND ND	0.24,J		22.8	79
Dilution factor for Methane 5	1Q05	91	ND	142	25.2	1150	ND ND	0.24 J ND	0.12 0.18	11.5	790
	2Q05	270	NS	NS NS	20	796	ND ND	ND ND	0.18 ND	16.3 23.7	510
	3Q05	ND	NS	NS	8.8 J	876	0.33	0.26 J	ND I	20.3	5.3
	4Q05	210	. NS	NS	4.4 J	926	0.88	ND I	ND ND		74
			<del></del>				V-36	- NU	IND	24.6	24
MW-19-9D	1Q04	NS	NS	NS	NS	NS	NS	NS .	NC	NE	NO
	2Q04	210	ND	21.1	6.0 J	621	0.14	0.33 J	NS ND	NS 19.0	NS
	3Q04	NS	NS	NS I	NS	NS NS	NS NS		ND NS	18.2	1300
	1Q05	NS	NS	NS NS	NS.	NS NS	NS NS	NS NS	NS NS	NS	NS NS
	2Q05	NS	NS NS	NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS .	NS
								INO	NS	NS	NS
<u></u>	3Q05	NS	NS T	'NS I	NS I	NG I	Ne I	NC	ND T	NIC	- NA
	3Q05 4Q05	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS

## L.E.Carpenter and Company (LEC), Borough of Wharton, Morris County, New Jersey MW19/Hot Spot 1 Quarterly Groundwater Monitoring MNA Analytical Data

Weil ID	Sampling Event	Heterotrophic Plate Count	Alkalinity to pH 8.3	Alkalinity to pH 4.5	TSS	TDS	Nitrate Nitrogen	Ammonia Nitrogen	Phosphorus (total)	Sulfate <sup>(1)</sup>	Methane
(units)		cfu/mi	mg/i	mg/l	mg/l	mg/l	mg/l	mg/l	. mg/l	mg/l	ug/i
MW-19-10	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	34	ND	109	6.8 J	.563	ND.	ND	ND	18	2.6 J
1	3Q04	18	ND	98	.10.4 J	908	ND	ND	ND	19.2	3.3 J
	3Q04D	22	ND	97.8	10.8 J	890	ND	0.24 J	ND	17.9	2.9 J
	1Q05	29	ND	127	5.2 J	625	. ND	ND	ND	16.9	74
	2Q05 <sup>L</sup>	170	NS	NS	32.4	653	ND	ND	ND	18.1	48
	2Q05 <sup>0</sup>	93	NS	. NS	32	691	ND	0.12 J	ND	18:3	48
	3Q05	26	NS	NS	10.4 J	560	ND	ND	ND	16	ND
	4Q05	56	NS	NS	17.2	654	ND	ND	, ND	15.3	3.2 J
MW-19-11	1Q05	940	ND	205	4.8 J	4,750	2.2	ND	ND	65.6	9.9
	2Q05 <sup>L</sup>	NS	NS	NS	64	731	ND	0.42 J	ND	18	930
	2Q05 <sup>U</sup>	14	NS	NS	27.2	740	ND	ND	ND	17.2	1,200
	3Q05	63	NS	NS	106	555	ND	ND	0.11	21.5	26
Dilution factor for Methane 10	4Q05	80	NS	NS	15.2	854	ND	0.32 J	ND	25.5	440
Atmospheric Blank	1Q05	> 5700	ND	ND	ND	ND	ND	ND ND	ND	ND	ND
	4Q05	5	NS	NS	ND	10.0 J	ND	ND	ND.	0.30 J	ND
Rinsate Blank	1Q05	36	ND	ND	ND	ND	ND .	ND	ND	ND	ND
	3Q05	. ND	NS	NS	ND	ND	ND	ND	ND	ND	ND
	4Q05	ND	NS	NS	ND	ND	ND	ND	ND ND	ND	ND

#### Notes

As mentioned in January 13, 2005 letter, only the MW-19 Hotspot wells will be sampled for MNA parameters due to the implementation of Source Reduction on the L.E. Carpenter property effective 1Q05.

(1) Sulfate has a dilution factor of 5, except for blank samples or unless otherwise noted.

NS = Not Sampled

ND = Not Detected

Lower Grab Sample

Upper Grab Sample

# L.E.Carpenter and Company, Borough of Wharton, Morris County, New Jersey MW19/Hot Spot 1 Quarterly Groundwater Monitoring MNA Field Data

Well ID	Event	DO (mg/L)	pН	ORP (mV)	Conductivity (uS/cm)	Turbidity (NTU)	Temperature (°C)	Ferrous Iron (ppm)	Alkalinity (ppm)	CO2 (mg
MW-19	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	10.97	7.23	24	890	. 2	13.94	NM	160	70
	3Q04	0.1	7.62	-10	1179	2	16.18	<10	200	95
	1Q05	0.2	7.67	100	590	5	11.82	9	NM <sup>(1)</sup>	121
	2Q05 <sup>L</sup>	1	7.84	NM	734	10	8.6	0.3	30	<10
	2Q05 <sup>U</sup>	1	7.69	NM	760	10	8.46	0.4	29	<10
	3Q05	1	7.03	185	1920	9	15.86	>10	110	60
	4Q05	5.34	6.47	87	1005	4	15.01	>10	110	18
MW-19-1	1Q04	NS	NS .	NS	NS	NS	NS	NS	NS	NS
	2Q04	13.9	7.22	180	1373	. 10	13.9	NM	125	17
	3Q04	1	7.5	80	1910	10	18.49	0.2	90	28
	1Q05	1	7.8	213	676	10	11.49	0	NM <sup>(1)</sup>	30
	2Q05 <sup>L</sup>	0.8	7.6	NM	2540	22	9.15	0.2	75	<10
	2Q05 <sup>U</sup>	1 1	7.67	NM	2540	10	8.5	0.1	90	<10
	3Q05	1	7.22	208	2260	20	15.23	0.1	100	10
	4Q05	6.54	7.06	291	1149	36	16.70	0.1	45	<10 <10
MW-19-2	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	116
	2Q04	4.45	7.3	83	1199	6	13.97	NM NM	210	NS 60
	3Q04	5	7.45	59	1830	9	16.97			
······································	1Q05	<del>                                     </del>	7.3	249	825	10_	11.02	0	130 NM <sup>(1)</sup>	15.5
	2Q05 <sup>L</sup>	0.8	7.8	NM	1312					63
	2Q05 <sup>U</sup>	0.8	7.76			29	7.76	0.1	100	<10
<del></del>	3Q05	1 0.8	7.59	NM 204	1316	10	8.00	0.1	100	10
	4Q05	4.75	6.79	290	1980 1442	<u>3</u>	14.87 16.50	0.2	100	10 15.5
							10.50	0.2	105	15.5
MW-19-5	1Q04	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2Q04	10.16	7.02	41	1550	4	12.89	NM	130	70
	3Q04	1 1	7.26	87	1740	19	16.3	2	150	60
	1Q05	1	7.94	226	269	9	10.59	0	NM <sup>(1)</sup>	63
	2Q05 <sup>L</sup>	1	7.94	NM	2640	10	8	0	45	16
	2Q05 <sup>U</sup>	0.8	7.99	NM	2100	38	6.96	0	45	10.5
	3Q05	0.8	7.44	184	920	2	15.15	>10	100	35
	4Q05	1.84	6.27	217	216	10	15.15	0.1	30	11
MW-19-6	1Q04	NS	NS	NS	NS	NS	NS.	NS	NS	NS
	2Q04	5.48	6.86	56	2640	10	15.24	NM	80	33
	3Q04	1	7.43	83	2490	4	16.61	0.4	125	20
	1Q05	1	7.73	241	867	12	11.79	0	NM <sup>(1)</sup>	41
	. 2Q05 <sup>L</sup>	1	7.5	NM	1870	27	10.64	0.1	75	15
	2Q05 <sup>U</sup>	1	7.48	NM	1790	2	9.89	1		
	3Q05	1 1	7.28	191	3030	36	15.2	0.4	80. 70	20
	4Q05	5.39	5.86	307	. 1550	9	14.76	0.4	80	20 10.5
MW-19-7	1Q04	- NS	NS	NS	NS	NS	NS	NC	NO	
	2Q04	5.89	6.82	48	380	6	NS 14.34	NS NM	NS 95	NS 90
	3Q04	1	6.92	113	4040	2	16.77	1	75	70
	1Q05	0.6	7.16	281	1388	1	11.34	3	NM <sup>(1)</sup>	63
	2Q05 <sup>L</sup>	0.05	7.82	102	938	25	11.7	15	160	36
	2Q05 <sup>∪</sup>	1	7.8	NM	961	49	11.22	15	200	29
	3Q05 <sup>L</sup>	0.8	7.03	90	2670	17	14.76	>10	95	0.8
	3Q05 <sup>U</sup>	1	7.02	185	2460	5	16.02	>10	70	35
	4Q05	1.58	5.98	-44	1434	14	14.85	>10	11	30
MW-19-8	1Q04	NS	NS	NS.	NS	NS	NS .	NS	NS	NS
	2Q04	3.98	6.9	-24	2010	10	15.69	NM	125	30
	3Q04	0.4	7.52	48	1093	7	18.29	2	100	19
·	1Q05	0.3	7.06	161	177	16	12.92	10	NM <sup>(1)</sup>	
	2Q05	0.8	7.92	NM	1510	47	10.82	- 6	70	28
-	3Q05	0	7.07	147	1820	2	18.86	3	80	19 19
	4Q05	6.74	6.10	330	1460	5	17.19	3		
						<u>_</u> _	17.10		85	20

# L.E.Carpenter and Company, Borough of Wharton, Morris County, New Jersey MW19/Hot Spot 1 Quarterly Groundwater Monitoring MNA Field Data

4 NS 4 3.03 4 0.2 5 1.5 6 0.05 5 0	NS 7.11 7.4 7.14	NS -28 8	NS 480	NS 80	NS	**	**	
4 0.2 5 1.5 5 0.05	7.4 7.14		480	60		**	**	**
5 1.5 5 0.05	7.14	8		63	14.64	**	**	**
5 0.05			545	35	15.7	**	**.	**
		193	871	267	11.58	**	**	**
5 0	7.91	NM	471	. 70 .	12.12	**	**	**
	7.35	189	552	2	16.4	**	**	**
5 0.94	5.78	-91	465	1	13.96	8.9	**	**
NS NS	NS	NS	NS	NS	NS	NS	NS	NS
3.82	6.78	85	1050	7	13.94	NM	80	25
\$ 0.1	7.35	107	1498	11	15.56	1.5	65	20
0.15	7.25	285	1039	28	13.19	. 2	NM <sup>(1)</sup>	20
0.8	7.47	NM	1209	52	12.18	0.4	70	13
1	7.48	NM	1282	41	11.18	1	75	13
5 1	7.62	212	1148	18	16.47	0.6	70	13
9.89	6.73	229	1167	39	15.00	1	60	10
5 1.5	7.01	215	740	á	10.3	. n		65
								17
0.8	7.8	NM	1442	10		4		15
5 1	7.72	209	1155	77	16.63	1		12.5
2.5	6.51	271	1470	10	15.86			15
	5 0.15 0.8 0 1 5 1 5 9.89 5 1.5 L 0.8 0 0.8	0.15 7.25 0.8 7.47 0.8 7.48 1 7.62 1 7.62 0.9.89 6.73 1.5 7.01 0.8 7.88 0.8 7.88 0.8 7.88	0 0.15 7.25 285 0 0.8 7.47 NM 0 1 7.48 NM 0 1 7.62 212 0 9.89 6.73 229 1.5 7.01 215 1 0.8 7.88 NM 0 0.8 7.8 NM 0 0.8 7.8 NM	6         0.15         7.25         285         1039           1         0.8         7.47         NM         1209           0         1         7.48         NM         1282           5         1         7.62         212         1148           6         9.89         6.73         229         1167           5         1.5         7.01         215         740           1         0.8         7.88         NM         1424           0         0.8         7.8         NM         1442           5         1         7.72         209         1155	5 0.15 7.25 285 1039 28 1 0.8 7.47 NM 1209 52 0 1 7.48 NM 1282 41 5 1 7.62 212 1148 18 6 9.89 6.73 229 1167 39 1 1.5 7.01 215 740 8 1 0.8 7.88 NM 1424 38 0 0.8 7.8 NM 1442 10 1 7.72 209 1155 77	6         0.15         7.25         285         1039         28         13.19           1         0.8         7.47         NM         1209         52         12.18           0         1         7.48         NM         1282         41         11.18           3         1         7.62         212         1148         18         16.47           5         9.89         6.73         229         1167         39         15.00           5         1.5         7.01         215         740         8         10.3           1         0.8         7.88         NM         1424         38         12.18           0         0.8         7.8         NM         1442         10         12.12           5         1         7.72         209         1155         77         16.63	5 0.15 7.25 285 1039 28 13.19 2 1 0.8 7.47 NM 1209 52 12.18 0.4 0 1 7.48 NM 1282 41 11.18 1 5 1 7.62 212 1148 18 16.47 0.6 5 9.89 6.73 229 1167 39 15.00 1 0 1.5 7.01 215 740 8 10.3 0 1 0.8 7.88 NM 1424 38 12.18 4 0 0.8 7.8 NM 1442 10 12.12 4 15 1 7.72 209 1155 77 16.63 1	5 0.15 7.25 285 1039 28 13.19 2 NM(1)  1 0.8 7.47 NM 1209 52 12.18 0.4 70  1 7.48 NM 1282 41 11.18 1 75  5 1 7.62 212 1148 18 16.47 0.6 70  5 9.89 6.73 229 1167 39 15.00 1 60  5 1.5 7.01 215 740 8 10.3 0 NM(1)  1 0.8 7.88 NM 1424 38 12.18 4 110  1 0.8 7.8 NM 1442 10 12.12 4 90  5 1 7.72 209 1155 77 16.63 1 80

#### Notes

As mentioned in January 13, 2005 letter, only the MW-19 Hotspot wells will be sampled for MNA parameters due to the implementation of Source Reduction on the L.E. Carpenter properly effective 1Q05.

\*\* Additional field MNA parameters not required for MW-19-9D.

(1) Laboratory analyzed for alkalinity due to destroyed field kits.

NS = Not Sampled

NM = Not Measured

## Table 5 L.E. CARPENTER AND COMPANY (LEC) Borough of Wharton, Morris County, New Jersey

#### Surface Water Monitoring Data

17.1 - E.	ANALYTICAL PARAMETERS											
MONITORING WELLS	SAMPLE DATE	. Senzene Ethylbenz			ylbenzene	e Toluene		Total Xylenes		bis-2- Ethylhexylphthalate (DEHP)		
	WAS UNITS		ug/l 0.15		ug/l 3,030		ug/l 7,440		ug/l NCS		ug/l	
	NEW JERSEY SURFACE WATER QUALITY STANDARDS (NJSWOS)											
SW-D-1												
	8-Apr-05	2Q05	.<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
·	26-Jul-05	3Q05	<	0.2	<	0.2	J	0.5	<	0.6	<	1.0
	26-Oct-05	4Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
SW-D-2							-	*			ļ	
	8-Apr-05	2Q05		NS		NS	<u> </u>	NS	1	NS		NS
	26-Jul-05	3Q05	<b>~</b>	0.2	J	0.5	<	0.2	<del>                                     </del>	6.1		38.0
***	26-Oct-05	4Q05	<	0.2	J	0.6	< .	0.2	J	2.0	<	1.0
SW-D-3												
	8-Apr-05	2Q05	<	0.2		21.0	<	0.2		79.0	J	2.0
	26-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	J	1.1	J	7.0
	26-Oct-05	4Q005	٧	0.2	J	0.4	<	0.2	J	1.4	<	1.0
SW-R-1									ļ 			
	20-Apr-05 <sup>(1)</sup>	2Q05	<	0.2		17.0	J	0.8	<del>                                     </del>	99.0	J	2.0
	25-Jul-05	3Q05	~	0.2	<	0.2	\ \ \	0.2	<	0.6	J	1.0
	27-Oct-05	4Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	1.0
SW-R-2							_		ļ			
011-12	20-Apr-05	2Q05		NS		NS	1	NS		NS		. NO
	25-Jul-05	3Q05	<	0.2	<b>-</b>	0.2	<	0.2	_	0.6	_	NS
-	27-Oct-05	4Q05	` <	0.2	<b>\</b>	0.2	\ \	0.2	< <	0.6	< <	0.9
OW D 0												
SW-R-3	00 4== 05	2005			-		· .					
· · · · · · · · · · · · · · · · · · ·	20-Apr-05	2Q05		NS	_	NS	1	NS_	igspace	NS		NS
<del></del>	25-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9
SW-R-4												
	20-Apr-05	2Q05		_ NS	$oxed{oxed}$	NS		NS		NS		NS
	25-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	٧	0.6	<	0.9
SW-R-5					$\vdash$	<del></del>						
	20-Apr-05	2Q05		NS		NS		NS		NS		NS
	25-Jul-05	3Q05	<	0.2	<	0.2	<	0.2	<	0.6	<	0.9

#### LEGEND

ug/L = micrograms per liter

NCS: No Criteria Specified

NS = Not Sampled

duplicate = Duplicate sample

Concentration exceeds NJSWQS

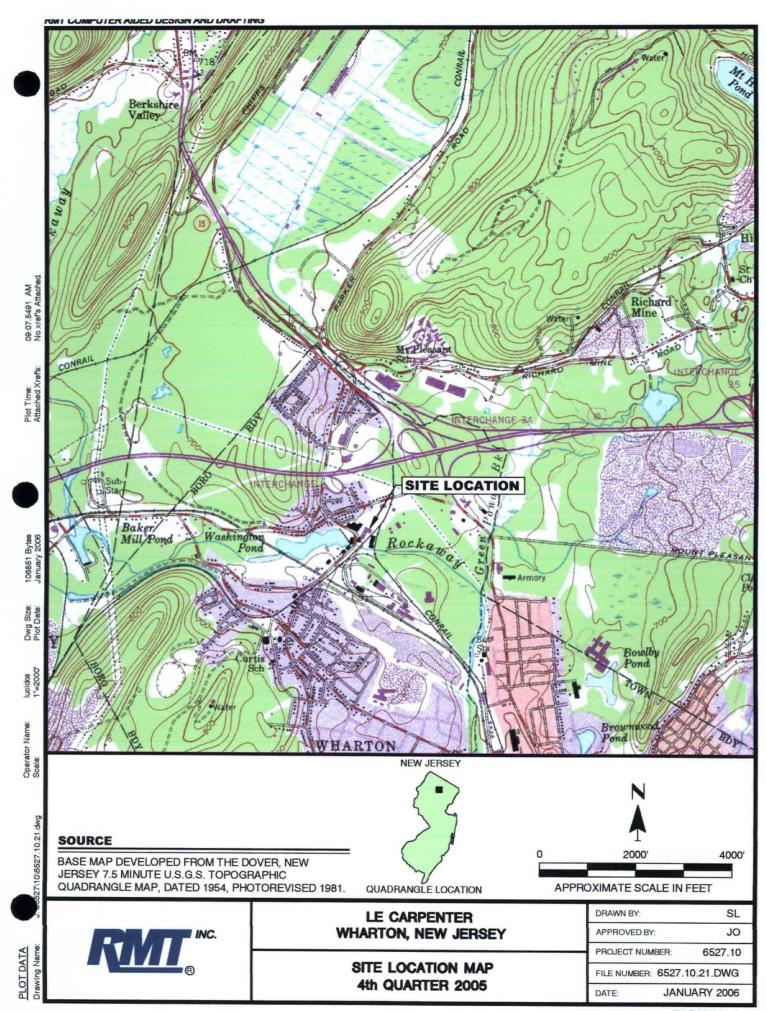
38.0

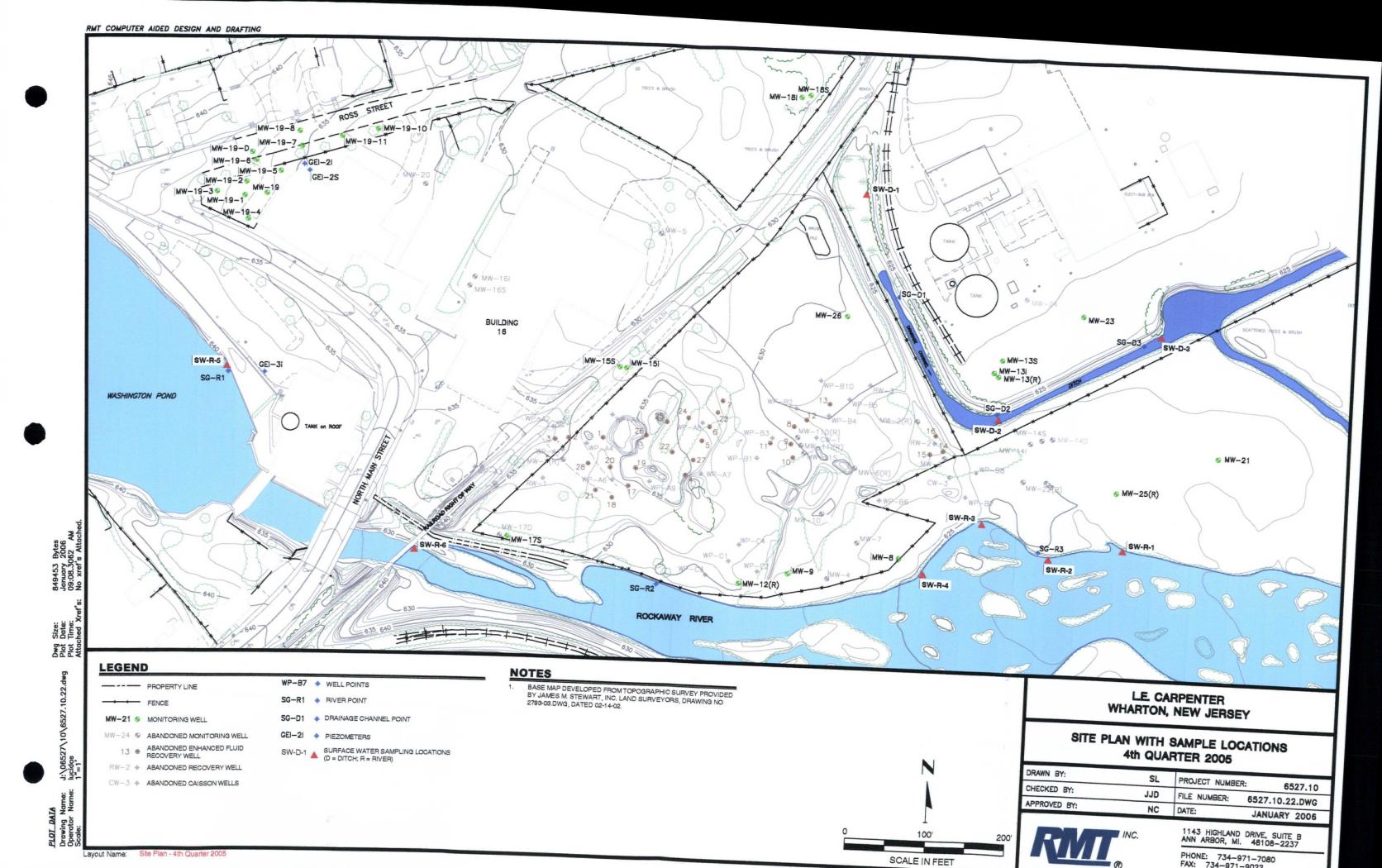
B: Analyte also detected in blank

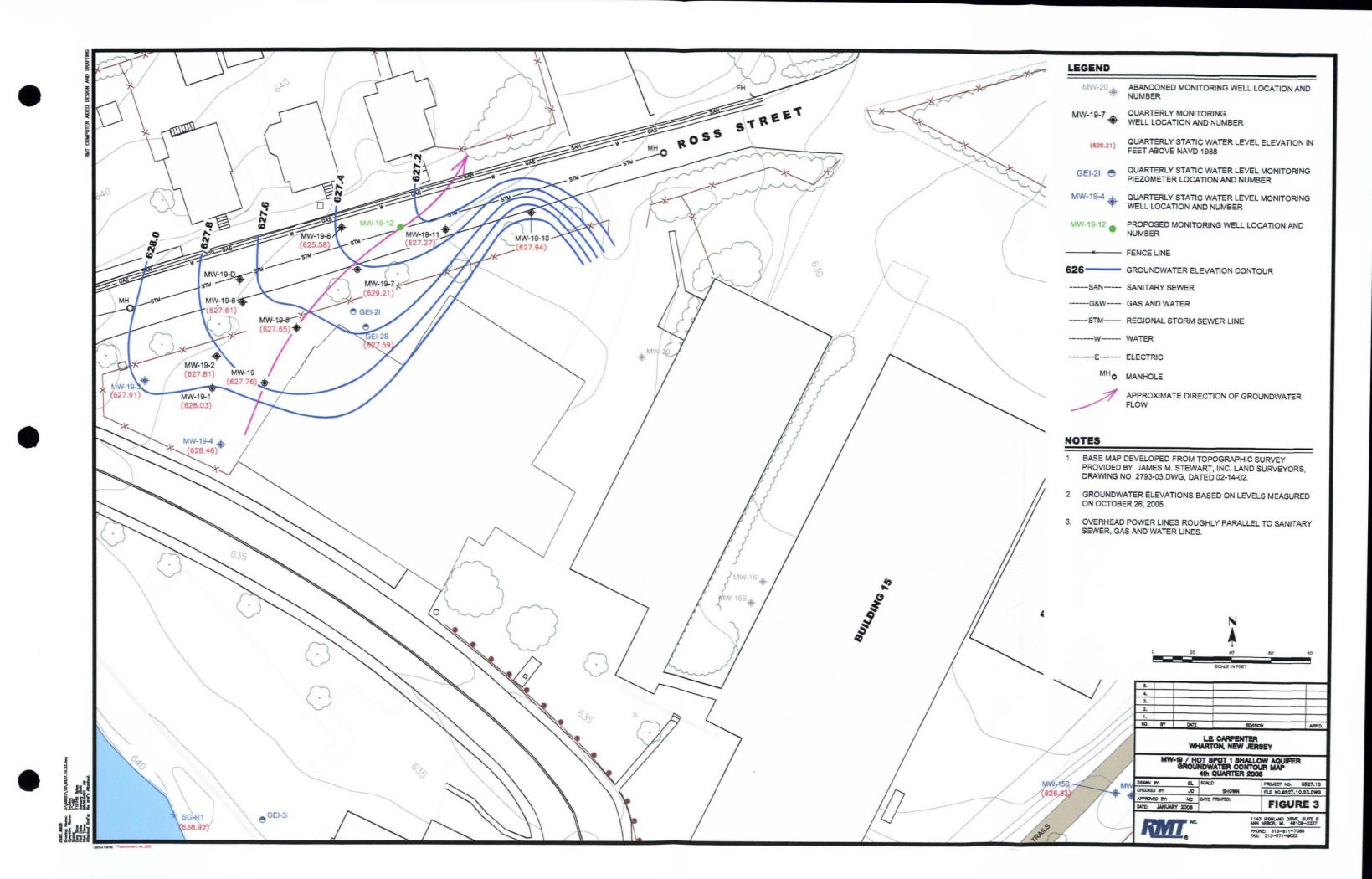
J: Estimated value. Value is greater than or equal to the Method Detection Limit (MDL) and less than the Limit of Quantitation (LOQ)

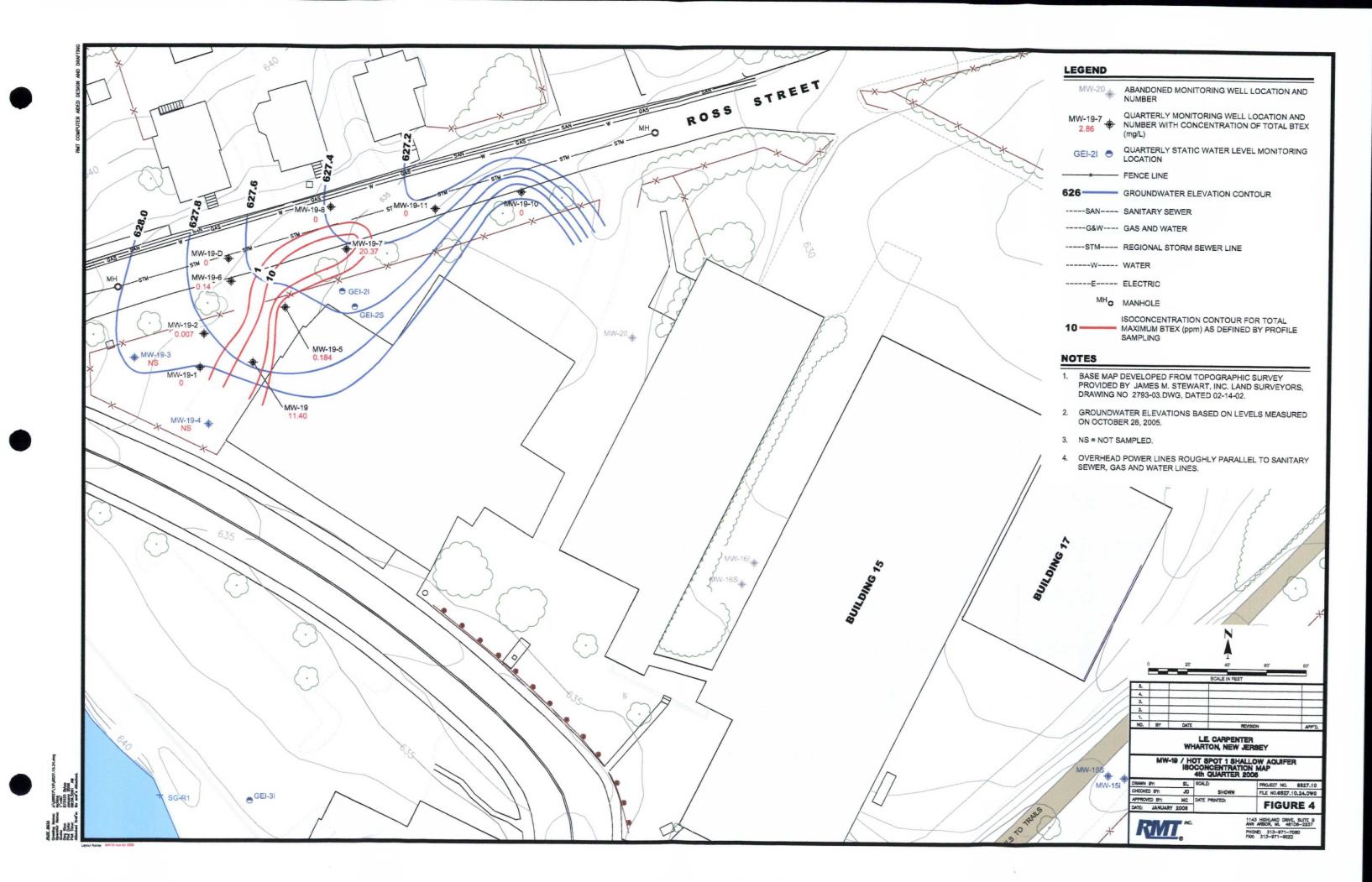
<sup>\* =</sup> Detection limit is elevated due to interference from other parameter detections. Laboratory will be contacted to lower benzene detection limit to be below the NJSWQS.

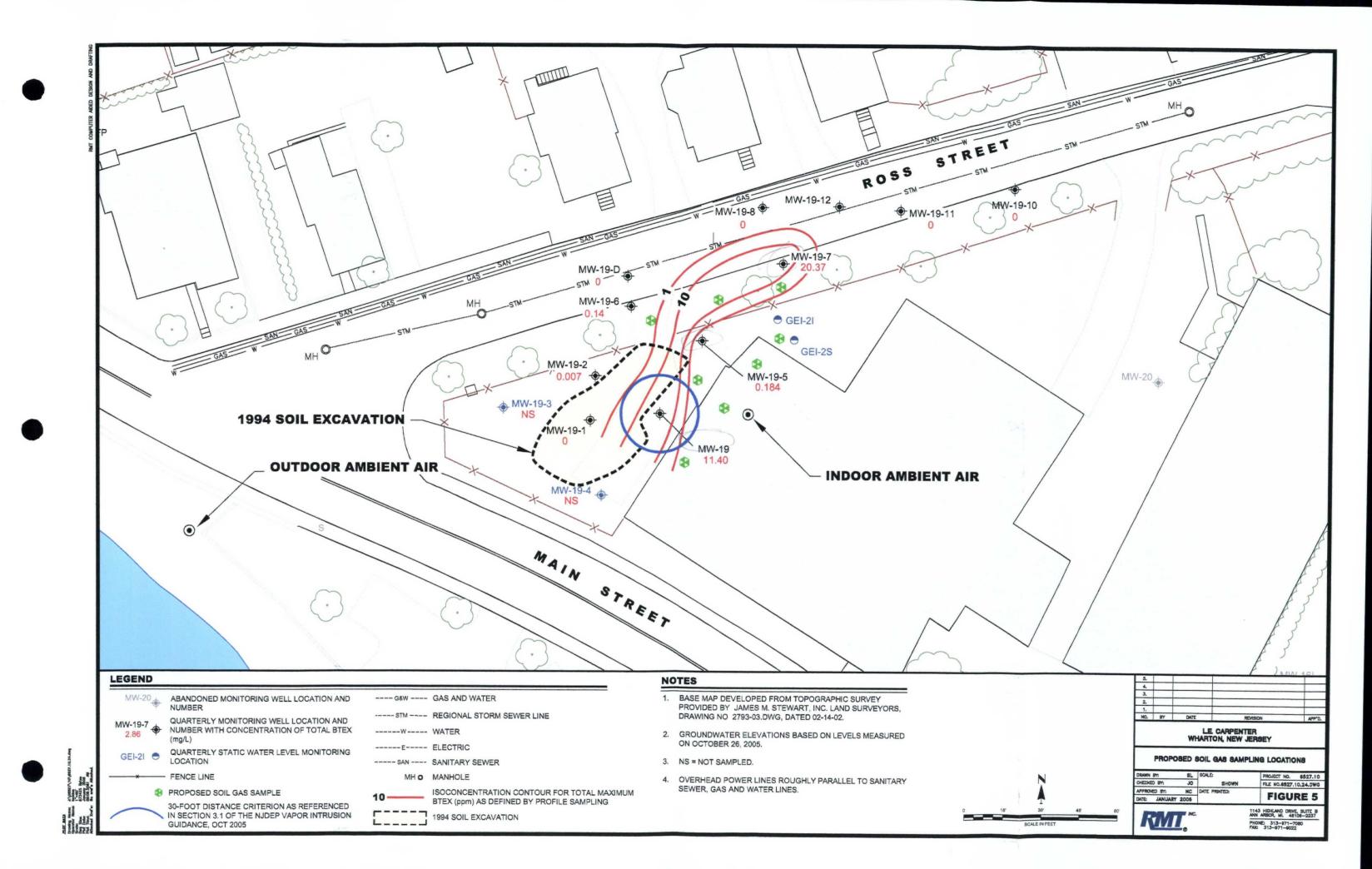
<sup>(1)</sup> One surface water sample was collected near the edge of the river immediately adjacent to the location of absorbent booms that were placed in order to prevent any migration into the river of sheen observed on top of quiescent water ponded within the wetland area. Due to bottle mislabeling and laboratory error, each of the five river sample bottles (R-1 through R-5) were analyzed individually instead of as a whole set. The highest concentration detected in any of the five laboratory results for the river sample are listed under SW-R-1 for April 2005.

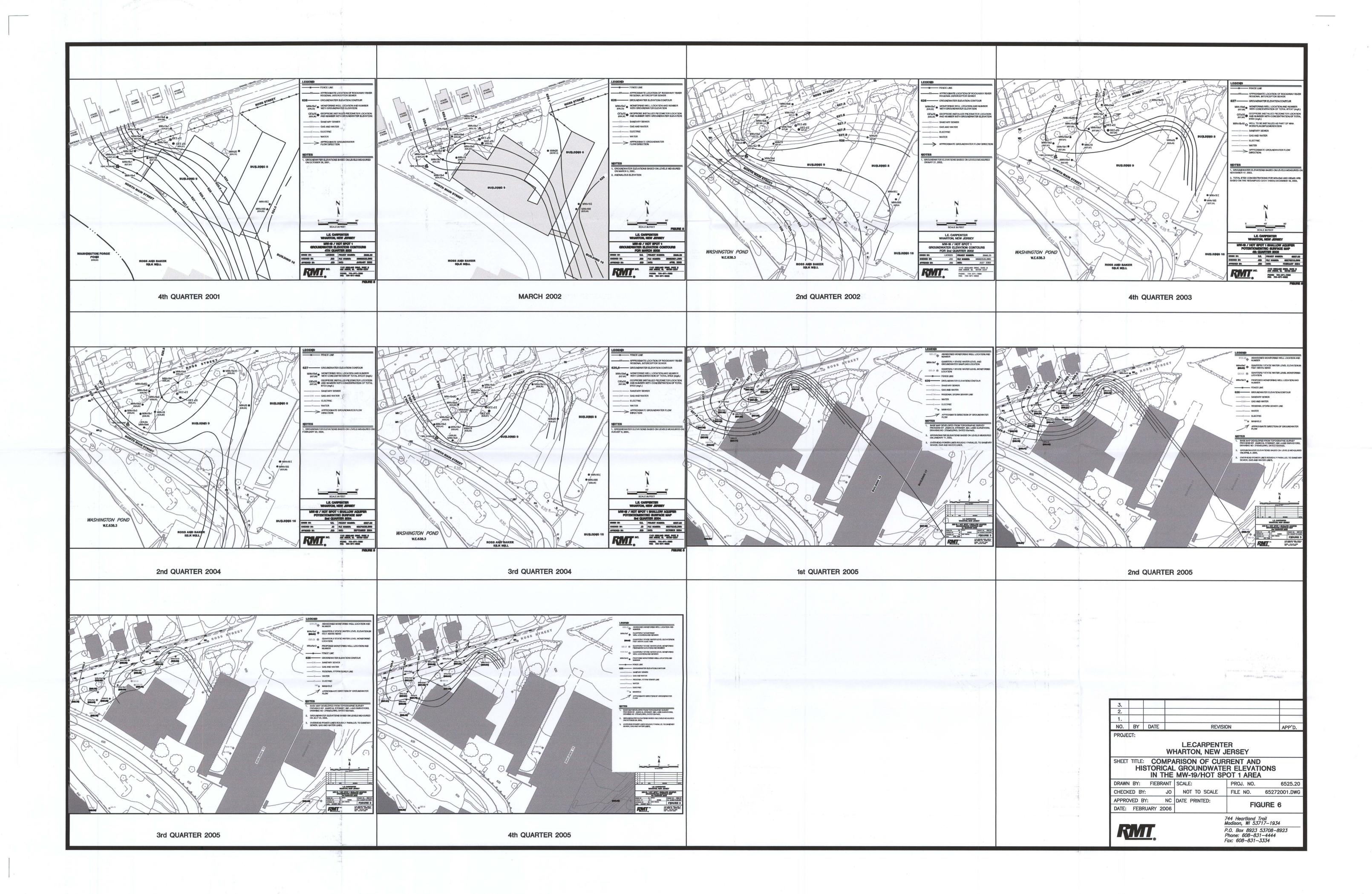












# Appendix A Report Certification

# REPORT CERTIFICATION PURSUANT TO N.J.A.C. 7:26E-1.5

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement, which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

Mr. Cristopher R. Anderson
PRINTED NAME
Director, Environmental Services
TITLE
L.E. Carpenter & Company
COMPANY
Cutopher R Dices
February 7, 2006
DATE

# Appendix B NJDEP Letter dated December 22, 2005



Richard J. Codey
Acting Governor

State of New Jersey

Department of Environmental Protection

Bradley M. Campbell Commissioner

Christopher Anderson
Director Environmental Affairs
L.E. Carpenter and Company
33587 Walker Road
Avon Lake, OH 44012

Re: L.E. Carpenter Superfund Site
Wharton Borough, Morris County, New Jersey

DEC 2 2 2005

The New Jersey Department of Environmental Protection (NJDEP or Department) as well as the United States Environmental Protection Agency (USEPA) have completed a review of the 3<sup>rd</sup> Quarter Monitoring Report dated October 19, 2005. This document was prepared by RMT, Inc. on behalf of L.E. Carpenter and Company (LE). The NJDEP finds the report to be conditionally acceptable provided the following comments are addressed.

#### General Comments:

LE should note that all of the Natural Attenuation parameters collected, as part of the sampling effort shall be summarized and a discussion provided.

This report provided sampling results of ground water monitoring well samples collected in July 2005 following the conclusion of the source reduction excavations. The results of the sampling confirmed a persistent area of ground water contamination in the vicinity of monitoring wells MW-19 and MW-19-5.

There appears to be some uncertainty with regard to the specific flow path and extent of the contamination based on the current monitoring well network, and recent quarterly reports have recommended adding one or more monitoring wells to help delineate the groundwater plume. The NJDEP/USEPA recommend, however that source area impacted by soils be delineated and a treatment proposed which may help alleviate the need for establishing an Operable Unit – 2, groundwater at the site.

Also, a review of the sampling results indicate high levels of toluene in MW-19-5. According to the NJDEP's Vapor Intrusion Guidance Document (October 2005), a vapor intrusion evaluation must be completed if a receptor is within 30 feet of a BTEX plume or 100 feet if product is suspected. Three residences on Ross Street are within the 100-foot criterion. The high levels of toluene suggest that residual product may be present. Therefore, a vapor intrusion evaluation must be performed. The NJDEP recommends that soil gas samples be taken on the LE side of Ross Street, as well as, on the opposite side of Ross Street (i.e. right of way). LE should be aware that due to the close proximity of residential homes and the persistence of this contaminated source, the NJDEP/USEPA cannot concur with continued monitoring. LE shall propose a work plan within thirty (30) days upon receipt of this correspondence which addresses these issues.

#### **Specific Comments:**

Section 2.4, Delineation of Groundwater Contamination, page 2-3: The groundwater sample results from MW-19 and MW-19-5 reported a significant increase in contaminants over previous sampling rounds. Whether this is due to the revised sampling protocol or an actual spike at the source area is not discussed, however the levels suggest that LE consider a more aggressive approach (i.e. active remediation) for the source at the MW-19 area.

Till the some the state of the suite of the suite of the suite of the suite of the strongling conducted a following the translation of the suite of the surface conducted a

Section 3.2, Rockaway River, page 3.2: The report states that surface water sampling at the eastern drainage ditch as well as the Rockaway River and Washington Forge Pond will continue as part of the quarterly sampling. Sample location SW-R-6 shall also be included in the quarterly monitoring.

Section 4.3, Post Source Reduction Site Monitoring, page 4-1: The report states that the proposed site monitoring network will include one additional shallow monitoring well for the MW-19 area. The location of the proposed well is acceptable. The NJDEP must be provided with any details on the installation as well as a schedule for when the monitor well be installed.

Should you have any questions please contact me at (609) 633-1416.

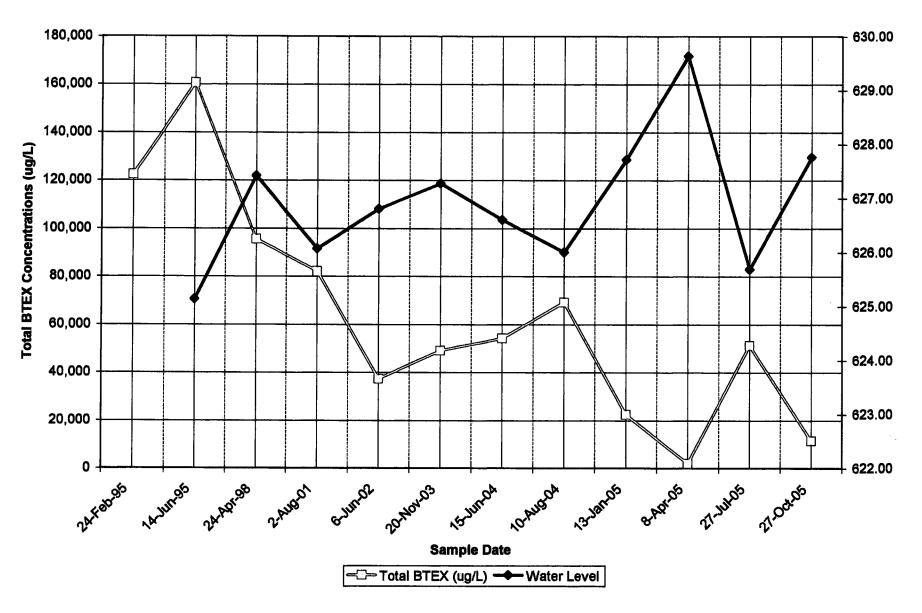
Sincerely,

Anthony Cinque, Case Manager Bureau of Case Management

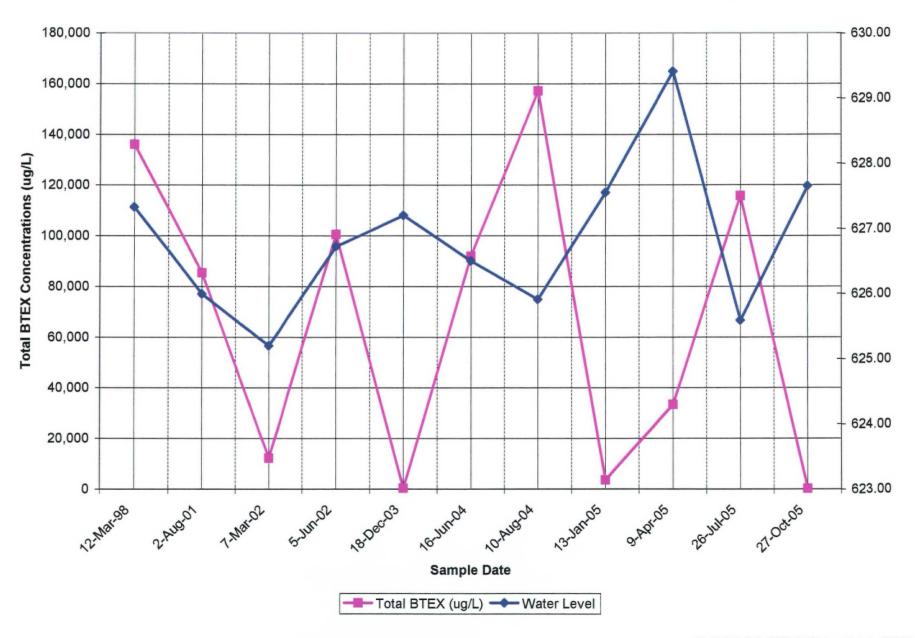
C: Nicholas Clevett, RMT Stephen Cipot, USEPA Robert Alvey, USEPA George Blyskun, BGWPA John Prendergast, BEERA

# Appendix C BTEX Concentration Trend Charts

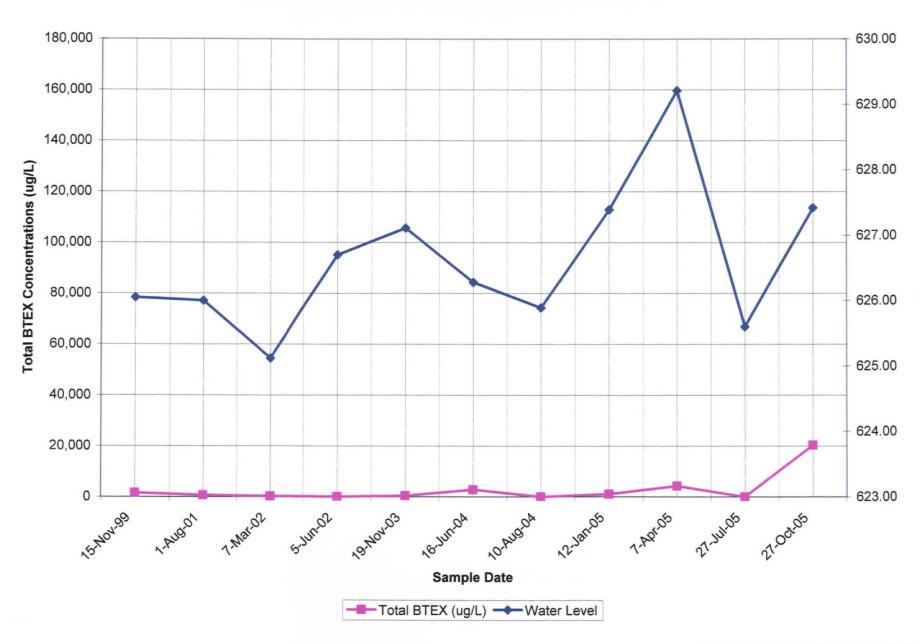
#### **Total BTEX Concentrations vs. Water Levels for MW-19**



#### Total BTEX Concentrations vs. Water Levels for MW-19-5



#### Total BTEX Concentrations vs. Water Levels for MW-19-7



# Appendix D 4<sup>th</sup> Quarter 2005 Monitoring Well Sampling Data



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PROJECT NAME:	L. E. Carpenter
,	
PROJECT NUMBER:	6527.10
PROJECT MANAGER:	N. Clevett
SITE LOCATION: —	Wharton, NJ
-	
·	
	•
DATES OF FIELDWORK:	10/24/2005 TO 10/28/2005
<del>-</del>	Collect Static Water Levels, Ground and Surface Water Sample
PURPOSE OF FIELDWORK:	
_	
<b>-</b>	
•	
_	E. Vincke, J. Overvoorde
WORK PERFORMED BY:	
· · · · · · · · · · · · · · · · · · ·	
_	



#### **GENERAL NOTES**

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PROJECT NAME: L. E. C	arpenter	DATE: 10	125/05	TIME ARRIVED: (	into Newark
PROJECT NUMBER:	6527.1 <b>O</b>	AUTHOR:	E. Vincke, J. Overv	TIME LEFT: 7	30 pm
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SIGNED	DATE		ED BY		DATE

SIGNED

11-14-05

DATE



## **GENERAL NOTES**

PROJECT NAME: L. E. Carpenter	DATE:	10	24	05		TIME AR	RIVED	7°am	,
PROJECT NUMBER: 6527.10	AUTHO	R:	E. V	incke,	J. Overv	TIME LE	FT: JC	100	1
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MW-19-2 (1345-1405)						1-1 (15			1
	v - D-2	2 (	174	3),	SW	-0-3	(17	50)	<b>]</b>
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SIGNED

vervoorde 40/26/05

DATE



#### **GENERAL NOTES**

PROJECT NAME: L. E. Carpenter	DATE: /C	127/05	TIME ARRIV	ED: 7am
PROJECT NUMBER: 6527.1©	AUTHOR:	E. Vincke, J. Overv	TIME LEFT:	1930
	THE MENT THE			
EMPERATURE: 60 °F WIND:	5 MPH	VISIBILITY:	partly	Cloudy
WORK	evsampuneraar	ORMED:		
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MW-19-6 (- MW-19-7 (	1055 - 1135)	<u>9) 8-91-WM</u> 19-91 -WM	(1132-	+ ms/r
SW-R-1 (1350	), Sw-R.	/ -01	<del></del>	530-153
MW-19-5 (1	1635-17°°)		00)	<u> </u>
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SIGNED





#### **WATER LEVEL DATA**

	() ()	Specialis of	March 14 Prince 1997
PROJECT NAME: L. E. Carpenter			DATE: 10/26/05
PROJECT NUMBER: 6527,10			AUTHOR: E. Vincke, J. Overvoorde

	002. 🖓	9		AOTHOR	Villike, J. Overvoord
WELL LOCATION		REFERENCE	DEPTH TO WATER (FEET)	DEPTH TO BOTTOM (FEET)	DEPTHIO WATER PRODUCT ELEVATION
MW-19	ersh	NA .	8.14	16.57	NS No
MW-19-1	0937	/	7.61	15.22	
MW-19-2	0934		8.49	Jord .	5) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
MW-19-3	0946	**	8.79	NM	
MW-19-4	of45		6.57		
MW-19-5	0940		7.91	15.49	
•MW-19-6	0914		Seal.	19,64	
"brane".	0904		7.58	20.24	
MW-19-8	0908		10.0	1157	
	0912		13.76	NM	
MW-19-10	0850		649	20.10	
MW-19-11	0857	transition and the second	6.40	/5,79	
	1358		9.84	W.	
MW-151	1357		9,31	NM	
GEI-2I	0442		9.61		
GEI-2S	0943		9.48	NM	<u> </u>
GEI-3I	0952		MAG.		
56-R1	0954		2.0	NA	
56-RB	1405		180	W	
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ALL WATER LEVELS MUST INCLUDE REFERENCE POINT AND TAPE CORRECTION FACTOR (E.G., 1.1 + 0.00 T/PVC).

SIGNED VENNOORDE

10 26 DS

CHECKED

11-14-05

DATE



#### **EQUIPMENT SUMMARY**

PROJECT NAME: L. E. Carpenter	CAMPIEDMANE
PROJECT NO.: 6527.1 <b>€</b>	SAMPLER NAME: E. Vincke, J. Overvoorde
WATER LEVEL MEASUREMENTS COLLECTED WITH	
NAME AND MODEL OF INSTRUMENT	SERIAL NUMBER (IF APPLICABLE)
PRODUCT LEVEL MEASUREMENTS COLLECTED W	THE AMERICAN STREET
NA	
NAME AND MODEL OF INSTRUMENT	SERIAL NUMBER (IF APPLICABLE)
DEPTH TO BOTTOM OF WELL MEASUREMENTS CO	LLECTED WITH: Care to the control of
QED MP-30 NAME AND MODEL OF INSTRUMENT	SERIAL NUMBER (IF APPLICABLE)
PURGING METHOD:	
NAME AND MODEL OF PUMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)
SAMPLING METHOD	
NAME AND MODEL OF PUMP OR TYPE OF BAILER	SERIAL NUMBER (IF APPLICABLE)
NAME AND MODEL OF FILTERATION DEVICE	FILTER TYPE AND SIZE
teston-lined polyeth.	LOW-FLOW SAMPLING EVENT
PURGE WATER DISPOSAL METHOD	
☐ GROUND ☐ DRUM ☐ POTW	POLYTANK OTHER
DECONTAMINATION AND FIELD BLANK WATER SOU	RGE
POTABLE WATER SOURCE	laboratory Chem Source
SIGNED 10/28/05 DATE	DI WATER SOURCE  CHECKED BY  DATE



#### **CALIBRATION LOG**

PROJECT NAME:	L. E. Carpenter	MODEL: QED	SAMPLER:	EV & JO
PROJECT NO.:	6527.1 <b>0</b>	SERIAL #: LEC	DATE:	10/26/05

**PH CALIBRATION CHECK** 

PH 7 (LOT NUMBER):	(PH3) 10	TINE
6.35 / 7.00	3.40/ 4.00	8 <sup>lo</sup>
7.07 / 7.00	4.11 / 4.00	1313
1	1	
	1	

#### SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CALIBRATION READING (LOT NUMBER);		D.CONDUCTIVITY TIME
1310 / 1413	16.13	giz
1540 1 1413	17.74	313
/		
. /		

### D.O. CALIBRATION CHECK

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#### **TURBIDITY CALIBRATION CHECK**

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#### OXIDATION / REDUCTION POTENTIAL CALIBRATION CHECK

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PROBLEMS ENCOUNTERED	CORRECTIVE ACTIONS

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CHECKED BY

DATE



## **CALIBRATION LOG**

PROJECT NAME: L. E. Carpenter	MODEL: QED	SAMPLER: EV & JO
PROJECT NO.: 6527.1 <b>0</b>	SERIAL#: LEC	DATE: (0/27/05

#### PH CALIBRATION CHECK

(LOT/NUMBER): 256599	(Lot Number):	214/10 \$670/3	ТІМЕ
8.07 / 2.00	3.28	1 4,00	0721
6.27 / 7.00	4.61	1 4.00	1919
. 1		1	
$I_{i_1,\ldots,i_n}$		1	

#### SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CALIBRATION READING (LOT NUMBER): 2505267	IEMPERATURE .	CORRECTED CONDUCTLY (unhos/cm)	TIME -
1510 /	8.14	1413	0730
1357	18.67	1413	15/7
. /			

#### D.O. CALIBRATION CHECK

CALIBRATIIONIREADING	TIME
100%	0727
100 %	1521

#### **TURBIDITY CALIBRATION CHECK**

	on reading	
(Acons):	(LO)5(#)	1911 - 19
6 0-10	496 10-1,000	0726
6 0-10	498 10-1,000	1525
/	1	-
/	1	

#### **OXIDATION / REDUCTION POTENTIAL CALIBRATION CHECK**

CALIBR	ATION READING	TEMPERATURE (CCL SUS)	CORRECTED ORP	TIME
256	1 2625 - 257.0	4.31	258	0719
266	1 250.5-251.0	14.36	245	1522
	1.			
	1	•		

	** · · · · · · · · · · · · · · · · · ·
PROBLEMS ENCOUNTERED	
######################################	CORRECTIVE ACTIONS
· · · · · · · · · · · · · · · · · · ·	
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	i

CHECKED BY

Drenoade	10/27/05
SIGNED	DATE

11-14-05 DATE



PROJECT NA	ME: L.E.	Carpenter		PR			z - Jeghie	sked jar	
PROJECT NU	JMBER: 6527	10	ВУ	': EV & J	O DATE: 10	20 05 BY:	(A)	DATE:/(-14-0	<u>}</u>
SAMPLEJOY			WELL DIA	METER: 🔀	2" 🗌 4" 📗	6" □OT⊦	IER		
· · · · · · · · · · · · · · · · · · ·	RIAL: PVC	<b>⊠</b> ss	<del></del>	HER					
SAMPLE TYP		□ww	SW DI		LEACHATE	□отн			
···!PURGN	G TIME:	8 <b>3</b> 5	DATE: 10 26 C	75   · · · · S	AMPLE	TIME: C	705 D	ATE: 10/26/05	CO2= 10
PURGE	N PUMP	OE.	D Bladder	PH:	<u>6.73</u> s	U COND		67 umhos/cm	
METHOD:	BAILER	,	<del></del>	ORP:	229 n	nv DO: C	1.89 mg/L		Alk = 60p
DEPTH TO WA				TURBII					
DEPTH TO BO	ттом 20.10	<del></del>				·	MODERATE	☐ VERY	Ferraus
WELL VOLUME		LITERS					°C OTHER:		۔ ثم ا
VOLUME REM		_X LITERS	<del> </del>		a: chrw.			none	Le= 146
COLOR:	Clear		ODOR: NONE		TE (0.45 um)	☐ YES	≥ NO		
TURBIDITY:	Wayar F	1			TE COLOR:		FILTRATE ODG	DR:	
-77000		MODERATI	<del>-</del>			MSD [	DUP-		1
DISPOSAL ME	THOD GRO	DND 🔀 DRI	JM OTHER	СОММ	ENTS:				
IIME R	RGE PH ATIE (SU)	CONBUCTIV		(ang/L)	TURBIDITY (NTU)	TEMPERAT	- LEVEL	CUMULATIVE PURGEVOLUME (GALORA)	
835 4	00 6.34	994	241	9.86	NM	14.5	-2		
840	6.56			10.45	50	15.1			1
845	6.67			11.09	47	15. 2			-
820	6.65			11.50	46	15,0			_
855	6.69			10.19	41				-
900	6.70				40	14.8			
905				9,98		14.90		10	-
7 V	6.73	1167	229	9.89	39	15.00	5.99	12	1
					· · · · · · · · · · · · · · · · · · ·				1
		ļ							
NOTE: ST	ABILIZATION T	EST IS COM	PLETE WHEN 3 S	UCCESSIVE	E READINGS	ARE WITHIN	N THE FOLLO	WING LIMITS:	-
pH: +/- <b>0.1</b>	COND.: +/-	- 10 OF	RP: +/- 10 D	.O.: <b>+</b> /- <b>10</b>	TURB: +/-	10 OR	= 5</td <td>TEMP.: +/- 0.5°C</td> <td></td>	TEMP.: +/- 0.5°C	
BOTTLE		ATIVE CODI			· · · · · · · · · · · · · · · · · · ·				1
	A - NO	<del>1</del>		C - H2SO4	D - Na		E - HCL	F- Na2S2	/3
	ZE TYPE	PRESERV		<del></del>	R SIZE	TYPE	PRESERVATI	VE FILTERED	]
<b>\$5</b> 40		E	□ Y <b>∑</b>		1000 ml	glass	C	□ Y DD N	1-120ml
	m/ glass	A	□ Y <b>Q</b>		16	glass	F	□Y ¥N	Plastic
1 40	mi glass	C			11_	pla stic	A	□ Y X N	F
SHIPPING MET	HOD: de C	ounier	DATE SHIPPED:	داما	4/05	AIRBILL	. NUMBER:	, lh1	]
COC NUMBER:			<del></del>	1012	<u></u>	DATES	<del></del>	NM	1

10 26 05

DATE SIGNED:



PROJECT NAME:

L. E. Carpenter

0104422

SIGNATURE:

COC NUMBER:

#### **WATER SAMPLE LOG**

PREPARED CHECKED

/ELL MATERIAL: AMPLE TYPE: PURGING  PURGE ETHOD: DEPTH TO WATER: DEPTH TO BOTTOM /ELL VOLUME: /OLUME REMOVED: COLOR: TURBIDITY:	TIME: 95 PUMP BAILER 5.92 T/ 15.79 T/ 6.09 X L Claudy to IGHT MODE	BET OC LITERS LITERS DERATE	IRON OTHER	ETER: X  HER  PH: ORP: TURBI X NO TEMPE COLO FILTRA FILTRA QC SA	27] n IDITY: 10 INE	TIME: / CONDL INTU IGHT   1	ER  ER  DYS  C  JCTIVITY:  SD mg/L  MODERATE	□ VERY
AMPLE TYPE:  PURGING  PURGE ETHOD:  PEPTH TO WATER:  PEPTH TO BOTTOM  PELL VOLUME:  POLUME REMOVED:  PURGE  PURGE  PURGE  RATE  RATE  (MLMIN)  955 4000	FINE: 95  PUMP BAILER 5.92  T/ 15.79  Claydy to Claydy to GROUND GROUND PH CON	DA D	SW DI TE:  0 16 09 - QED  GALLONS GALLONS OR:	PH: ORP: TURBI  X NO TEMPE COLO FILTRA QC SA	AMPLE  C.S. S  271 n  IDITY: 10  INE SL  ERATURE: 1  R: Cleo  ATE (0.45 um)  ITE COLOR: MS	TIME: / SU CONDL nv DO: 2 NTU IGHT [] I 5. 86	DYS E  JCTIVITY:  MODERATE  C OTHER:  DDOR:  NO  FILTRATE OF	UVERY  Nore
PURGING  PURGE ETHOD:  DEPTH TO WATER: DEPTH TO BOTTOM  VELL VOLUME: VOLUME REMOVED: COLOR: TURBIDITY:  DISPOSAL METHOD  TIME PURGE RATE (MLYMIN)  955 400	TIME: 95 PUMP	DA DA DA DA DA DE	GALLONS GALLONS GALLONS VERY OTHER	PH: ORP: TURBI  TEMPE COLO FILTRA FILTRA QC SA	AMPLE  C.S. S  271 n  IDITY: 10  INE SL  ERATURE: 1  R: Cleo  ATE (0.45 um)  ITE COLOR: MS	TIME: / SU CONDL nv DO: 2 NTU IGHT [] I 5. 86	DYS E  JCTIVITY:  MODERATE  C OTHER:  DDOR:  NO  FILTRATE OF	UVERY  Nore
PURGE ETHOD:  DEPTH TO WATER: DEPTH TO BOTTOM PURGE: POLUME REMOVED: COLOR: DURBIDITY: DISPOSAL METHOD  TIME PURGE: RATE: (MLYMIN) PURGE: (MLYMIN)	PUMP B BAILER 5.92 T/ 15.79 T/ 6.09 A L Claydy to Claydy to GHT MODE GROUND GROUND	DEFORM DRUM	GALLONS GALLONS OR: Name VERY OTHER	PH: ORP: TURBI  X NO TEMPE COLO FILTRA FILTRA QC SA	CSS S 27] n DITY: 10 NE SLI ERATURE: 1 R: CSO ATE (0.45 um) TE COLOR: MS	CONDU	MODERATE C OTHER: DDOR: NO FILTRATE OD	UVERY  Nore
ETHOD:  DEPTH TO WATER: DEPTH TO BOTTOM DELL VOLUME: DOLUME REMOVED: DOLUME REMOVED: DOLUME DEMOVED: DOLUME DEMOVED: DOLUME REMOVED: DOLUME RE	BAIL'ER  5.92 T/  15.79 T/  6.09 X L  Claudy to  Claudy to  GHT DEMOD	DERATE  DRUM	GALLONS GALLONS OR: Nac VERY OTHER	ORP: TURBI  INO TEMPE COLO FILTRA FILTRA QC SA	ATE (0.45 um)  TE COLOR:	CONDU	MODERATE C OTHER: DDOR: NO FILTRATE OD	UVERY  Nore
DEPTH TO WATER: DEPTH TO BOTTOM VELL VOLUME: VOLUME REMOVED: COLOR: URBIDITY: URBIDITY	5.92 T/ 15.79 T/ 6.09 X L 20 X L Claudy to Claudy to GHT MOD	LITERS LITERS  LITERS  ODO  DEFATE  DRUM	GALLONS GALLONS OR: Mare VERY OTHER	TURBI  NO TEMPE  COLO  FILTRA  FILTRA  QC SA	IDITY: ID  NE SL  ERATURE: L  R: C 20  ATE (0.45 um)  TE COLOR: MS	NTU IGHT   I	MODERATE C OTHER: DDOR: NO FILTRATE OF	VERY  Nore
PEPTH TO BOTTOM  ZELL VOLUME:  ZOLUME REMOVED:  COLOR:  ZURBIDITY:  NONE SLI  DISPOSAL METHOD  TIME PURGE:  (MLYMIN)  955 400	SH CON	LITERS LITERS  LITERS  ODO  DEFATE  DRUM	GALLONS GALLONS OR: Mare VERY OTHER	TEMPE COLO FILTRA FILTRA QC SA	NE SLIERATURE:	GHT	OTHER: ODOR: NO FILTRATE OF	None
VELL VOLUME: VOLUME REMOVED: COLOR: VURBIDITY: VURBIDIT	GOOR ALL  Claydy to  Claydy to  Claydy W  IGHT MOD  GROUND  PH CON	LITERS LITERS ODO LITERS DERATE DRUM	GALLONS GALLONS OR: Name VERY OTHER	TEMPE COLO FILTRA FILTRA QC SA	R: CEO  ATE (0.45 um)  TE COLOR: MS	5.86 L YES	OTHER: ODOR: NO FILTRATE OF	None
COLUME REMOVED: COLOR: CURBIDITY:  NONE SLI DISPOSAL METHOD TIME PURGE RATE (MLYMIN)  955 400	Claudy to Claudy (W) IGHT PH CON	DERATE  DRUM	GALLONS OR: Nac VERY OTHER	COLO FILTRA FILTRA QC SA	R: CEO ATE (0.45 um) TE COLOR: MS	YES }	ODOR: _ NO FILTRATE OC	None
COLOR:  TURBIDITY:  NONE SLI  DISPOSAL METHOD  TIME PURGE RATE  (MIJMIN)  95 400	Caydy to Loudy (W)  GHT PH CON	DERATE DRUM	OR: Name  VERY  OTHER	FILTRA FILTRA QC SA	ATE (0.45 um) TE COLOR: AMPLE: MS	☐ YES 2	NO FILTRATE OF	OOR:
NONE SLI DISPOSAL METHOD  TIME PURGE RATE (MLYMIN)  95 400	Journ / W. IGHT PH CON	DERATE DRUM	☐ VERY	FILTRA QC SA	TE COLOR:		FILTRATE OC	
NONE SLI DISPOSAL METHOD TIME PURGE RATE (MUMIN)	GHT PH COX	DERATE DRUM	OTHER	QC SA	MPLE: MS			
TIME PURGE RATE (ML/MIN)	GROUND GON	DRUM	OTHER			S/MSD [	DUP-	X A1
TIME PURGE RATE (ML/MIN)	PH CON	HOGERALDICETORISTINAS 1		COMM	ENTS:		•	
RATE (MUMIN)		laulejr)VjijY				<u> </u>	· · · · · · · · · · · · · · · · · · ·	
1000 1	The state of the s	minos/cmi)	(ORR: (m)()	i ibilo. Cinali-)		HANGERAUL	RE 1. SYSTER I SYSTER (FISSI)	PURGEVOLUME
1000	6.82	<b>384</b>	253	6.47	177	15:5	1 5.92	INITIAL
	6.63 1	074	263	4.38	149	15.88	5 5.93	3 2
1005		166	269	4.06		15.8		
1010		225	275	4.63	140	15.89		6
1015	6.54 /	268	283	3.62	50	16.03		
1020		342	283	2.68	36	15.98		
1025		384		3.18	29	15.9		
1090	6.53 1	1412		-			6.18	
; ,			280	2.89	19	15.89		
1035		1427	278	2.52	20	15.8		
	6.57 1	444		2.55		15.82		18
045 V	6.51	470	271	2.50	10	15.86	0.19	20
PH: +/- 0.1 St. BOTTLES		ORP:						DWING LIMITS: TEMP.: +/- 0.5°C
	A - NONE		HNO3 C	- H2SO4	D - Na	он ғ	E- HCL	F-NazSzOz
UMBER SIZE		ESERVATIV		<del></del>		· · · · · · · · · · · · · · · · · · ·	PRESERVAT	
5 40 ml	VOA	E		1 2	ال	g lass	C	□Y Z N
1 40ml	VOA	A				amber	F	□ Y Z N
1 40ml	VOA	<del>"</del>			IL	pl.	A	O Y N
1 170	10.,		<u>                                     </u>		4/05			עי בוע

## RMT.

PROJECT NA	ME: L.E.	Carpenter			FRE	Pared :		J. Ch	iegked ;
PROJECT NU	JMBER: 6527	.10		BY:	EV & JC	DATE: 10	24 05 BY	M,	DATE: (() PH
SAWIZUS IDAS			WEL	L DIAMET	ER:  2	2"	6" <b>1</b> ОТІ	HER	
WELL MATER		⊟ss		<b>Х</b> ОТНЕ					
SAMPLE TYP	PE: GW	w		<b>7</b> DI		EACHATE	□оті	HER	
. Puren	G TIME:		DATE:	<del></del>	∤. sa	Melle ar	TIME: \	100	DATE: 10 26 0
PURGE				/	PH:		· •	UCTIVITY:	unitos/
METHOD:	BAILER	$\Delta$		_	ORP:		nv DO:		Add
DEPTH TO WA	ATER:	PVQ			TURBID	ITY:	NTU	$=$ $\sqrt{V}$	1
DEPTH TO BO	ттом	Ty PVC			NON	E SE	IGHT 🗌	MODERATI	E VERY
WELL VOLUME		LITERS	GAL	LONS	TEMPER			°C OTHER	₹:
VOLUME REM	OVED:	LITERS	☐ GAL	LONS	COLOR:	<u> </u>		ODOR:	_None_
COLOR:		<del> </del>	ODOR:	<del></del>		E (0.45 um)	YES	X) NO	
TURBIDITY:		1 40055:-		100 t	<del></del>	E COLOR:		FILTRATE (	DDOR:
NONE [	SLIGHT [	MODERATI		/ERY		IPLE: MS	S/MSD	DUP-	
		אם ואלו מאיר	HTO ML	IER	СОММЕ				
, IIME: j. 189	JRCE ATE MNIN) (SU)	CONDECTIVE (um)ros/co				THREIDITY (NTU)	TEMPERAN	LEVE	
						Andrew Charles of the Charles			INITIAL
					$\mathcal{L}_{V}$				
•				1	14,				
		,				··········			
					<u> </u>			_	
				·					
		<del> </del>							
								.	
NOTE: ST	ABU IZATION T	FET IS COM	DI ETE MOU						
pH: +/- 0.1	COND.: +/		PLETE WHE RP: +/- 10		+/- 10	TURB: +/-		N THE FOLI	LOWING LIMITS: TEMP.: +/- 0.5°
;;;;(0);;(Es;		ATIVE CODE	S						
	A - NO	ONE I	B - HNO3	C-	H2SO4	D - Na	ОН	E- HCL	F. Nazsz
	IZE TYPE	PRESERV	ATIVE FIL	TERED	NUMBER	R SIZE	TYPE	PRESERV	ATIVE FILTERE
5 40	m) VOA	E	□ Y	, 	2	ĮŁ	g.l	C	
	m yoa	A	□ Y	ΝΦ	2	16	<b>stam</b>	F	
1 40	ml VOA	C	□ Y	N	2	11	Pl	A	
SHIPPING METI	HOD:	ed Ex	DATE SHIP	PED:	10/2	6/05	AIRBIL	L NUMBER:	8534 10
COC NUMBER:			SIGNATURI	E: 20	7). 10.10	man of a		SIGNED:	1 1
	010	700	3.27771970	- <u>-</u>	JUEN	ONOL	DATE	JIGNED:	10/26/05



PROJECT NUMBER: 6527.10   SY: EV & JO DATE: 10 to 10   DATE: 11 14 2   DATE: 12   DATE:	PROJECT I	NAME: L	. E. Carpenter		FREE	ARED :		, Ghi≓e	KED :	
WELL MATERIAL:	PROJECT	NUMBER: 6	527.10	BY:	EV & JO	DATE: (0)	24 05 BY: (	yn,	DATE:11140	
SAMPLE TYPE:   GW   WW   SW   DI     LEACHATE   OTHER				WELL DIAME	TER: 2"	<b>∑</b> 4" □	6" OTHE	R		]
TIME: 13.45   DATE: 10/12/05   DATE: 1	WELL MAT	ERIAL: P	vc 🔀 ss	☐ IRON ☐ OTH	ER					
PHE	SAMPLE T	YPE: 💢 G		□SW □DI	LE	ACHATE	OTHE	R		]
METHOD:										
DEPTH TO WATER:				Piagoe	<u> </u>				74 C umnos/cm	
TURBIDTY:	DEPTH TO V	WATER: 4.			<b>-</b>	Y:				105
TURBIDTY:	DEPTH TO E	воттом <u>/6-1</u>	<b>○</b>	oc	NONE	☐ SLI	IGHT M	ODERATE	☐ VERY	NE" 10 PP
TURBIDITY:	WELL VOLU	ME: 18.5	7 X LITERS	☐ GALLONS	TEMPERA	TURE:	6.50 0	OTHER:		the ca
TURBIDTY:	VOLUME RE	EMOVED:	LITERS	☐ GALLONS	COLOR:	_ ck	ear o	DOR: <u>^</u>	one	15.3
TIME	COLOR:	cle	ar .	ODOR: None	FILTRATE	(0.45 um)	YES X	NO		Cor "
TIME	TURBIDITY:				FILTRATE	COLOR:	F	ILTRATE ODO	R:	] - fe'
TIME	NONE	SLIGHT	MODERAT	E VERY	QC SAME	LE: MS	/MSD	DUP- O	1	CAROLES M
TIME	DISPOSAL N	METHOD 🗌 G	ROUND 🔀 DR	UM 🗌 OTHER	COMMEN	TS:				1 10 5 661.
1345   400   6.32   1418   267   3.52   4   16.58   8.49   initial   1350   6.62   1425   281   4.84   2   16.66   8.49   2   13.55   6.70   1438   285   4.89   2   16.58   8.49   4   4   14.55   8.49   4   4   4   14.55   8.49   4   4   4   4   4   4   4   4   4		RATE					71 in 12 ar La	ie jagina	PURGEVOLUME	
1350	1345	400 6.	32 1418	267	2.52	4	16.58	8.49	INITIAL	
1405   G.76   1437   288   4.93   Q.   16.63   8.49   G.     1405   G.79   1442   290   4.75	1350	6.0	62 1429	281	4.84			-	2	]
1405   V   G.79   1442   290   4.75   1   16.50   8.49   8	1355	6.				2	16.58	8.49	4	
NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:  ph: +/- 0.1	1400	6.	76 143	7 288	4.93	2	16.63	3 8.49	6	
NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:  pH: +/- 0.1	1405	V 6.	79 144	2 290	4.75	1	16.50	8.49	8	
PH: +/- 0.1   COND.: +/- 10   ORP: +/- 10   D.O.: +/- 10   TURB: +/- 10   OR = 5   TEMP.: +/- 0.5°C    </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>,</td>										,
PH: +/- 0.1   COND.: +/- 10   ORP: +/- 10   D.O.: +/- 10   TURB: +/- 10   OR = 5   TEMP.: +/- 0.5°C    </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td>						-				
PH: +/- 0.1   COND.: +/- 10   ORP: +/- 10   D.O.: +/- 10   TURB: +/- 10   OR = 5   TEMP.: +/- 0.5°C    </td <td></td>										
PH: +/- 0.1   COND.: +/- 10   ORP: +/- 10   D.O.: +/- 10   TURB: +/- 10   OR = 5   TEMP.: +/- 0.5°C    </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>······································</td> <td></td>									······································	
PH: +/- 0.1 COND.: +/- 10 ORP: +/- 10 D.O.: +/- 10 TURB: +/- 10 OR <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>										
PH: +/- 0.1 COND.: +/- 10 ORP: +/- 10 D.O.: +/- 10 TURB: +/- 10 OR = 5 TEMP.: +/- 0.5°C    BOTTLES</td <td></td>										
PH: +/- 0.1 COND.: +/- 10 ORP: +/- 10 D.O.: +/- 10 TURB: +/- 10 OR <td>.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</td> <td>OTADU ÍTATO</td> <td>N TEST IS SE</td> <td></td> <td></td> <td><b></b></td> <td></td> <td></td> <td><u> </u></td> <td>J</td>	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	OTADU ÍTATO	N TEST IS SE			<b></b>			<u> </u>	J
NUMBER SIZE TYPE PRESERVATIVE FILTERED NUMBER SIZE TYPE PRESERVATIVE FILTERED  S 40 m Voa E Y N Z 1L gl C Y N plastic  I 40 m Voa A D Y N Z 1L amb F Y N plastic  I 40 m Voa C Y N Z 1L pl A Y N N C SHIPPING METHOD: FED EX  SHIPPING METHOD: FED EX DATE SHIPPED: 10 26/05  AIRBILL NUMBER: 8534 1071  6576				•				_		
NUMBER SIZE TYPE PRESERVATIVE FILTERED NUMBER SIZE TYPE PRESERVATIVE FILTERED  5 40 ml VOA E			ERVATIVE COD	ES	<del></del>	····		. "	·	
5 40 m VOA E	HILLE	D A-	NONE	B - HNO3 C	- H2SO4	D - Na	OH E	- HCL	F-NazSzO3	
1 40 ml VOA C	NUMBER	SIZE TYP	PE PRESERV	ATIVE FILTERED	NUMBER	SIZE	TYPE F	PRESERVATIV	E FILTERED	
1 40 ml VOA C	5 4	10 m Vo	AE	□ Y ⊠N	12	11	2	C.	TY DX N	1-120m
1 40 ml VOA C		10				-			□ Y 13€ N	plasti
SHIPPING METHOD: Fed Ex DATE SHIPPED: 10 26/05 AIRBILL NUMBER: 8534 1071 6565				<del></del>						' '
	SHIPPING ME			DATE SHIPPED:	10 26/					
	COC NUMBER				1					6554
COC NUMBER: O10 9922 SIGNATURE: SIGNATURE: DATE SIGNED: 10/26/05 6598		<u> </u>	17.00	-	4 New	word	DATE SIG	INED. 10	20/02	



PROJECT NAME: L. E. Carpe	enter			
PROJECT NUMBER: 6527.10	BY:	EV & JO DATE:	124/05B(: 10)	DATE 11-14-05
XMPLEID: F: NW 19 j	WELL DIAM	ETER: 2" 🔂 4" [	6" OTHER	
VELL MATERIAL: 🗌 PVC 🕱 S				
SAMPLE TYPE: N GW V		☐ LEACHATE	OTHER	
PURGING TIME: 1510				DATE Me /
# A	DATE: 10/20/09 ED Portable Blo	SAMPLE:		DATE: 10/24/05
PURGE X PUMP Q METHOD: DAILER	e o rande ble	ORP: 291	SU CONDUCTIVITY:	
DEPTH TO WATER: T/	PVC DC	TURBIDITY: 30		g/r_
DEPTH TO BOTTOM 15.22 T/			LIGHT MODERAT	TE 🗌 VERY
WELL VOLUME: 19.11 💢 LI	ITERS GALLONS	TEMPERATURE: _	16.70 °C OTHE	R:
VOLUME REMOVED 34 🛭	ITERS GALLONS	COLOR: CI	w flies odor:	None
color: tan brown	ODOR: None	FILTRATE (0.45 um	YES X NO	
TURBIDITY:		FILTRATE COLOR:	FILTRATE	
NONE SLIGHT MOD		QC SAMPLE: N	IS/MSD DUP-	
DISPOSAL METHOD 🗌 GROUND 🔀		COMMENTS:		
THIME PURGE PH GONE	o Dengviny (a) Ne	ide Turbidity	SEMPERATURE LEV	
(MEWIN) (SU) (um	anos/cm) (m(V)	(mg/L) (NTU)	(6)	TI) (GALORÓ)
1510 400 6.78 1	136 260	4.89 /000+	16.83 7.	
15 <sup>15</sup> (6.89 !!	30 251	5.71 10004		
1500 7.01 11	25 248	6.28 1000+		
1525 7.00 11	30 259	6.38 1000·		• • • • • • • • • • • • • • • • • • • •
	131 267	6.42 894	16.83 7.4	
	134 274	6.53 617	16.83 7.	
1545 6.97 1	146 282	6.01 [1]	16.64 7.1	
	147 284	5.97 75	16.67 7.4	
1605 6.99 11	148 290	6.02 59	16.73 7.0	
		5.94 49	16.74 7.4	
1620 1 7.09 1	152 289	6.60 47	16.83 7.4	
NOTE: STABILIZATION TEST IS				
pH: +/- <b>0.1</b> COND.: +/- <b>10</b>	<del></del>	D.: +/- 10 TURB: +	/- 10 OR = 5</td <td>TEMP.: +/- 0.5°C</td>	TEMP.: +/- 0.5°C
BOTTLES PRESERVATIVE  A NONE			<b>-</b>	AL 5 A
A NOIL	B - HNO3 C SERVATIVE FILTERED	- H2SO4 D - N NUMBER SIZE	<del></del>	F-NazSzO
			<b>—</b>	
7 70 11 1		<del></del>		Y X N
	A DY IN		<del>                                     </del>	
			pl A	□ Y <b>X</b> N
HIPPING METHOD: Fed Ex		10/26/05	AIRBILL NUMBER	8534 1071
OC NUMBER: 0104422	SIGNATURE:	Drenoorde	DATE SIGNED:	10/26/05



(CONTINUED FROM PREVIOUS PAGE)

PROJECT NAME:	L. E. Carpenter		. / FREP	ARED		رالا	KED
PROJECT NUMBER:	6527.10	BY:	EV & JO	DATE: 10 26	<b>65</b> B	Y /	DATE: N-14-05

SXMPLE		AWEH							i e
TIME	PURGE RATE		GANDUCTAY: Y	. 10RF	(9)(6);	TURBIDITY:	TEMPERATURE	LLYCL	GUMUPATIVE PURGEVOLUME
1625	(ML/MIN) 400	1 '7	(umhos/om) (150	(mV)	(mg/L)	(NITU)	(%)	(FEET)	(GALOKE)
1630	100	7.13	1149	294	6.66		16.70	7.49	
1635	\	7.11			6.63		16.67	7.49	32
16	V	7.06	114.1	291	6.54	36	16.70	7.49	34
					-		<u> </u>		
	· · · · · · · · · · · · · · · · · · ·								
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			-	· · · · · · · · · · · · · · · · · · ·					
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							,		
								· · · · ·	

SIGNATURE:

Diemarde

DATE SIGNED: 10 26 05

## RMT.

COC NUMBER:

## **WATER SAMPLE LOG**

PROJEC	T NAME:	L. E.	Carpenter			PRE	ARED.			mekano
PROJEC	T NUMBE	ER: 6527	.10		BY:	EV & JO	DATE: (C	PU OF BY	(P)	DATE: 11-14-0
SAMPLE	(D)			WELL	DIAMET	ER: 2	"	] 6" <b>⊠</b> 01	HER NIK	1
WELL M	ATERIAL:		□ss [	IRON X	OTHE				ייןטו	
SAMPLE	TYPE:	GW	w(	Z sw □	DI		ACHATE		HER	
. Feus	ene:	TIME:	[1	DATE:	_	SA	Mele II	TIME:	1728	DATE: 10/24/05
PURGE	. [	PUMP				PH:		SU CON	DUCTIVITY:	umbes/cm
METHOD	:	BAILER			-	ORP: _		mv DO:	mg/	
DEPTH T	O WATER	•	_T/ PVC			TURBIDI		NTU	NA	<b>Y</b>
	O BOTTON	VI	T/ PVC	<u> </u>		☐ NONE	<u> </u>	LIGHT	MODERATE	<del></del>
METT AO	**	/	THERS'	GALLO		TEMPER			°C OTHER	
·	REMOVED	):/	_ LATERS	GALLO	ONS			elt timy d		None
COLOR:				DOR:				YES	NO NO	
NONE		JGHT	MODERATE	☐ VE	RY	QC SAM	COLOR:	IS/MSD	FILTRATE C	DDOR:
	AL METHOL		JND DRUI			COMME		.5/19/50		-
	l ⊪aŭja(eja		# 55 Julius 1, 200 Julius 12, 111						Hallandini bart siye-ya	
TIME	RATE		CONDUCTIVIT	Y ORE		0.0	EURBIB)TY	TEMPERA	TURE WATE	
	(MEAMIN)	(SU)	(Umhos/car)	(mV)	je i jedi	mg/L)	(NTÚ)	(0)	area and the same	The state of the s
NH								<del>                                     </del>	£49	3 INITIAL
	<u> </u>	-			_		<del></del>			
		-		EVST2848 THOUSE						
					Majora (1) National (1) National (1)					· · · · · · · · · · · · · · · · · · ·
	1	<del> </del>								
		<u> </u>								
	<u> </u>	ļ						ļ		
				_						
ļ 			-	2.75.525.53.53.53		<u> </u>				
			1							
				LETE WHEN	3 SUC	CESSIVE I	READINGS	ARE WITH	IN THE FOLL	OWING LIMITS:
pH: +/-	0.1	COND.: +/-	10 ORF	P: +/- 10	D.O.:	+/- 10	TURB: +/	- 10 OR	= 5</td <td>TEMP.: +/- 0.5°C</td>	TEMP.: +/- 0.5°C
	riles :-	PRESERV	ATIVE CODES	}						
	‼≓in) '	A - NC	<del></del>	HNO3	-	H2S04	D- N	aOH	E- HCL	F-NazSz03
NUMBER		TYPE	PRESERVAT		_	NUMBER	SIZE	TYPE	PRESERVA	ATIVE FILTERED
3	40 ml	VOA	E		×Ν					□ Y □ N
2	11	amb	F	Y	<b>⊠</b> N					□Y □N
				Y	□ N					□Y □N
SHIPPING	METHOD:	End	<b>5</b> 0 5	ATE CHIDDE	n.		1	4.55.		

SIGNATURE:

#### **WATER SAMPLE LOG**

PROJEC	T NAME:	L. E.	Carpenter				PR	EPAR!	(D)		رخر	( ea	CKE	D	
PROJEC	T NUMBE	R: 6527.	.10		В	<b>/</b> :	EV&	JO DAT	E: PZ	6 05 BY		シ	DA	ге:11-14-0	7
EAMPLE			×27,		WELL DIA	MET	ER:	2" 🔲	4" 🔲	6" X OT	HER	NA		· <u>·</u>	Ī
WELL M	ATERIAL:	and to himber	☐ ss	IR [_]	ON [3-0.	THE	R N	Un-		<u>-</u>					1
SAMPLE	TYPE:	☐ GW	□ww	<b>X</b> S	W D	ı		LEACH/	ATE	O1	HER				
	(CINC)	TIME:		DATE	 E:	$\overline{}$	: s	AMPLI	3	TIME:	17	10	ATE:	1926/05	Ā
PURGE		PUMP	· A.				PH:		sı	CON	DUCT	IVITY:		umhos/ch	7
METHOD		BAILER	, 14	/			ORP:		m	v DO:		mg/L			
	O WATER		A PAC				TURBI			_ NTU			NH		
·	O BOTTO	м	PVC		7.041.04		□ NO			341				VERY	4
WELL VO		-	LITERS		GALLONS		<del></del>	RATUR		\ . al.a	°C	OTHER:	<u> </u>	nn P	╡
COLOR:	REMOVE		_ LITERS		GALLONS			R: <u>4</u>					76	me	=
TURBIDI				ODO	₹:	<u> </u>				YES	1	NO	OD:		4
NONE		JGHT [	MODERAT	ΓE	☐ VERY			TE COLO		MSD		DUP-	UK:		╡
		GROL	<u> </u>	RUM [	OTHER		+	ENTS:							$\dashv$
	i i ruzez	R SIARS TERRORIE				ži likir						WATER	1		
TIME	RATE	Ph	TEOMOURIN		(01:3:-4		D.O.	्रमा स्टा स्टा		TEMPERA		Eyal		UMULATIVE RGEWOLUME	
. 10	I (MLAMIN)	( # (SU) #	(Uminos/e	<b>a)</b>	!'(mV)		mg/L)	i (Vi	U) :	i		(FEET)		(GAL OR L)	
MH		+	<del> </del>			_					<b>&gt;</b>	1.25	-	INITIAL	4
						$\perp$									-
						┿		<u> </u>					<u> </u>		
		ļ				<u> </u>									
***	ļ					<u> </u>									]
						_									
															7
															1
								······································		*****					1
		,								-					1
NOT	E: STABIL	IZATION TE	EST IS COM	APLETI	E WHEN 3 S	SUC	CESSIV	E READ	INGS A	RE WITH	IN TH	F FOLLO	WING	I IMITS:	
pH: +/-		COND.: +/-		PRP: +/-			+/- 10		B; +/- 1		=</td <td></td> <td></td> <td>P.: +/- 0.5°C</td> <td></td>			P.: +/- 0.5°C	
:::801	TLES	PRESERV	ATIVE COD	ES				·		•					7
FILL	LED)	A- NO	NE	B - HN	103	С-	H2SO4	D	- NaO	н	E -	HCL	F	NazSz(	<b>}</b> ₃
NUMBER	SIZE	TYPE	PRESERV	ATIVE	FILTERE	ΞD	NUMB	ER S	IZE	TYPE	PRI	SERVAT		FILTERED	1
3	40 ml	VOA	E		□ Y <b>∑</b>	N						· · · · · · · · · · · · · · · · · · ·		Y DN	1
2	11	amb	P		□ Y <b>2</b>	N				· · · · · · · · · · · · · · · · · · ·		<del></del>	7	 Y	1
						N						**		N	1
SHIPPING	METHOD:	Fed	F×	DATE	SHIPPED:		10/21	م امور	,	AIRRII	NI I	MBER: (	)E >		ا ا
COC NÚM		<u> </u>				$\overline{\tau}$	<b>∧</b>	-	<u></u>	<del></del>					1
NUM!	DEK:	01041	166	SIGN	ATURE:	A	<u>Ove</u>	WOO	vol	DATE	SIGNI	ED:	N)Z	6/05	1

# RMT.

PROJECT NAME: L. E. Carpenter		THREPARED.			æd :
PROJECT NUMBER: 6527.10	BY:	EV & JO DATE:	6 05 BY:	an c	DATE: 01-14-05
SAMPLE ID: SW-D-3	WELL DIAMET		6" <b>Ş</b>	IER NA	
WELL MATERIAL: PVC SS	IRON SOTHE			,	
SAMPLE TYPE: GW WW	SW □ DI	LEACHATE	ПОП		
PURGING TIME:	DATE:	SAMPLE	TIME: 1	750 DAT	E: 10 26 05
PURGE PUMP METHOD: BAILER			U COND	UCTIVITY:	umhos/cm
DEPTH TO WATER:		TURBIDITY:	NTU	m N	+
DEPTH TO BOTTOMTI PVC		☐ NONE ☐ SLI	GHT [	MODERATE	☐ VERY
WELL VOLUME: LITERS	GALLONS	TEMPERATURE:		°C OTHER:	
VOLUME REMOVED: LITERS	GALLONS	COLOR: Ur w	tany adge	ODOR:	Jone
COLOR:	ODOR:	FILTRATE (0.45 um)	YES	□ NO	
TURBIDITY:		FILTRATE COLOR:		FILTRATE ODOR	<u> </u>
NONE SLIGHT MODERAT		QC SAMPLE: MS	/MSD	DUP-	
DISPOSAL METHOD GROUND DR	UM  OTHER	COMMENTS:	· · · · · · · · · · · · · · · · · · ·	·-	-
TIME PURGE PH CONDUCTO  (ML/MIN) (SU) (umhos/s		ioro: nitraliolary i matti	FIEMPERAY		CUMBLATIVE PURCE VOLUME (GAL OR U)
MA	aas America (Indonesialisia Waaria) ensimmente Human.		######################################	≥ 1.73	INITIAL
				1013	
				·	
			·		
NOTE: STABILIZATION TEST IS COMPH: +/- 0.1 COND.: +/- 10 O		CESSIVE READINGS / +/- 10 TURB: +/-		*	ING LIMITS: EMP.: +/- 0.5°C
urentominarie entre international de la company de la comp		3,12,17			
	<del></del>	H2SO4 D - Na(	<b>7</b> L	E - HCL	F-No-S-03
NUMBER SIZE TYPE PRESERV	·	NUMBER SIZE	TYPE	PRESERVATIV	
		AUDEN SIZE	115%	LUCSELVAIIA	
					Y DN
2 2L amb F			_	<u> </u>	LY DN
	N_				OY ON 65
SHIPPING METHOD: Fed Ex	DATE SHIPPED:	10/26/05	AIRBIL	L NUMBER: 85	34 1071 65
COC NUMBER: 0104422	SIGNATURE:	Diemoord	<b>Q</b> DATE S	SIGNED: 10	26/05 65



PROJEC	T NAME:	L.E.	Carpenter	•		· P	REPAR	(ED:		Ci	irle ki	D	
PROJEC	T NUMBE	R: 6527	10		В	Y: EV	& JO   DA	TE: 10/1	27/05 BY		DA	TE: U-14-0	
Sang E	ifa. W				WELL DI	AMETER: 5	2" 🗆	4" 🔲	6" □OT	HER			
WELL MA	TERIAL:	☐ PVC	<b>⊵</b> ∕ss	☐ IROI	V 🗆 0	THER	•						1
SAMPLE	TYPE:	<b>V</b> GW	□ ww	sw		)I [	LEACI	HATE	ОТ	HER		-:	
	cine :	TIME:	740	DATE:	10/27	65	(SAMP)	je i	TIME: 8	310	DATE:	10/27/09	, 
PURGE METHOD:		PUMP	OED	Blad	der	PH:		86 s			155	O umhos/cm	<b>-</b> -
	D WATER:	7.84		OC.		ORF	BIDITY:	<u> </u>	v DO: •	<u>5.39 mg</u>	;/L		Fe:
		19.64	<del></del>	<del></del>			IONE	SLI	M.O. GHT □	MODERAT	Έ	☐ VERY	
WELL VOL		7.28	X LITER		ALLON	S TEM	PERATU	RE:	4.76	°C OTHE	 R:		HIF
VOLUME	REMOVED		LITER:		ALLON		OR: _	Cle	ar	ODOR:		•	0.
COLOR:		clear	w tarm	ODOR:	Non	C FILT	RATE (0.	45 um)	YES	<b>⊠</b> NO			7007
TURBIDIT		red Flo	enes			FILTE	RATE COL	.OR:		FILTRATE	ODOR:		1
NONE			MODERAT		VERY	( QC	SAMPLE:	□ мѕ	/MSD	DUP-			1
DISPOSAL	. METHOD	☐ GROL	ND X DF	RUM 🔲 C	THER	COV	MENTS:						]
TIME	PURGE RATE (MUMIN)	;;; PH (6U)	[6](5](1)[](1) [7](1)[](1)[](2)[](1)[](1)[](1)[](1)[](1)[](1)[](1)[](1		(my/)	ido): (mg/L)		יי אינונעוני אינונעוני דער אינונעוני	FOSMPSRA (60)	LEV	1 PU	NUMB BATTIVE RCEEVBILUIVE (COLUERTA)	
740	400	5.77			352			3	14.5			INITIAL	
745		5.74	153		278			2	14.6		-	2	1
750		5.76	153		288			0	14.			4	1
755		5.74	1		294	5.18		5	14.7			6	1
800		5.79	-		96	5.25		5	14.0			8	1
805	_	5.83			304	5.3		1	14.4			ю	
810	V	5.86			307	5.39		,	14.		-	12	1
	<u> </u>				<del>, , ,</del>		<del>'                                     </del>			7.0	1	10	1 .
						1	+						1
						<del> </del>							1
				-   .		<del> </del>		-					-
NOTE	CTAR"	7.47101-	ETIS SEE	(D)	0 (m								]
pH: +/- (		COND.: +/-		RP: +/- 1						N THE FOL			
					· L	0.0.: +/- 10	10	RB: +/- '	IU OR	= 5</td <td>TEM</td> <td>P.: +/- 0.5°C</td> <td>•</td>	TEM	P.: +/- 0.5°C	•
		A - NO	ATIVE COD NE	<u>ES</u> B - HNO:	3	C - H2SC	)4	D-NaO	Н	E- HCL	F	- Nazsz	3
NUMBER	SIZE	TYPE	PRESERV	ATIVE	FILTER	ED NUM	BER S	SIZE	TYPE	PRESERV	ATIVE	FILTERED	
5	40 ml	VOA	E		] Y [X	N Z	.   1	L	gl	C		Y N	1-1 Pl
1	4	1	A		Y 🔀	<del></del>			amb	F			4
1	V	V	C		Y 2		<del></del>		ρl	A		JY TN	۲,
SHIPPING N	METHOD:	Lah c	ouri er	DATE SI	IIPPED:	10	27/2						} [
			_			$\overline{}$	27 0	<del></del> .		L NUMBER:		A	
COC NUMB	ER:	01044	14	SIGNATI	JRE: <	Wer	MOND	0	DATE S	SIGNED:	10/2-	1/05	

## RMT.

PROJEC	T NAME:	L. E.	Carpenter			- PR	EPARED				ECKE	DLGA	
PROJEC	CT NUMBE	R: 6527	.10		BY	': EV &	JO DATE:	192	OSBR		DA	TE:(1-14-0	3
SAMPL:	E	MAG			WELL DIA	METER: <table-cell></table-cell>	2"	<u> </u>	го	HER			1
WELL M	ATERIAL:	☐ PVC	∭ ss	☐ IF	то 🗌 иоя	HER	,						1
SAMPLE	TYPE:	<b>™</b> GW	□ww	□ s	W □DI		LEACHATE		TO	HER			]
	keine i	TIME:	920		= 10/27/0		AWELET	Ţ	IME:	955	DATE:	10/27/05	<u> </u>
PURGE		PUMP	OBD	BI	<u>adder</u>	<del></del>	6.10	SU			1461	umhos/cn	Cum S
METHOD		BAILER				<del></del>	<u>330</u>		<del></del>	<b>6.74</b> mg	<u>L</u>		Ferrous Fe = 3
	O WATER		T/ PVS	···	<del></del>	TURBI			_ NTU	MODERATI	-		
WELL VO		7.19	_T/ <del>PV</del> E		GALLONS		RATURE:		19	*C OTHER		☐ VERY	20
			LITER:		GALLONS			lea		ODOR:	<u> </u>	· · · · · · · · · · · · · · · · · · ·	Alk = 8
COLOR:		r w ta	nlred		R: none		TE (0.45 un			X NO			= P
TURBIDI	TY:	Flootic	25			_	TE COLOR:			FILTRATE (	DOR:		100 = 0
NONE	□ SI	JGHT 💢	MODERAT	E	☐ VERY	QC SA	MPLE: 💢	MS/M	SD	DUP-			100 W
DISPOSA	AL METHO	GROL	IND 🔀 DF	RUM [	OTHER	COMM	IENTS:						]
TUNE	PLURGE RATE (MEMIN)	i i leh Gu)	GONDIJOH (Limbos/o		(my)	(B.C.)	TURCIBIS (VIII)	Y T	EMPERA	I LEVE	L   PU	(IMULA) IVE F(EEXVO) IUME (EXVIOITÉ)	
920	400	6.12	87		818	5.66	56	111111111111111111111111111111111111111	16.9	_		INITIAL	1
925	1	6.05			321	6.30	35		16.0			1.5	1
930		6.05			323	6.14	24		16.		_	3.0	1
935		6.06			324	6.20	16		17.1			4.5	1
940		6.06	139	5	326	6.26	10		16.		-1-	6.0	1
945		6.07	144.	5	326	6.47	7		17.0			7.5	
950		6.10	144	1	326	6.62	5		16.			9.0	1
955	V	6.10	146	0	330	6.74	5		17.1	_		10.5	1
													1
	<u> </u>												1
NOT				IPLETE	WHEN 3 S	UCCESSIVI	E READING	S AR	E WITHI	N THE FOLL	.OWING	LIMITS:	
pH: +/-	0.1	COND.: +/-	10 0	RP: +/-	<b>10</b> D.	O.: +/- <b>10</b>	TURB: +	-/- 10	OR	= 5</td <td>TEM</td> <td>P.: +/- 0.5°C</td> <td></td>	TEM	P.: +/- 0.5°C	
balantitierennilletenlagerenne	TLES LEDY	PRESERV A - NO	ATIVE COD	<u>ES</u> B - HN	103	C H2004		1.0				al. 5 /	
NUMBER		TYPE	PRESERV		FILTERE	D NUMBE	D- N		TYPE	E - HCL PRESERVA		- Nazse	1
5	40 ml	VOA	E		□ Y <b>X</b>		11	_	11	C	VIIVE	FILTERED	120 m
1	1	1	A		□ Y <b>X</b>		1		mb	F	L	Y X N	1-120 m P1, F
1	<b>V</b>	V	Ċ		□ Y <b>∑</b>			+-	ρl	A	L	_	Y''
SHIPPING	METHOD:	Lab (	courier	DATE	SHIPPED:		27/05			L NUMBER:	1		<u> </u>
COC NUM	BER:	0104			ATURE: (	10						<u>M</u>	
		OLOA,	117	J. J. 17		SK CINE	woorde		DATES	SIGNED:	10 3	7/05	



PROJEC	T NAME:	L. E.	Carpenter			PAREDI:			BOKED
PROJEC	T NUMBE	R: 6527	.10	BY:	EV & JC	DATE:/0	27/05		DATE: 11-14-0
SAMPLE	in: )			WELL DIAM	ETER: 💢 2	"	] 6" □OT	HER	
WELL M	ATERIAL:	PVC	⊠ss [	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII			<del></del>	•	·
SAMPLE		X GW	ww [	SW DI		EACHATE	ГО□	HER	
. PU:	(GING !	TIME:	1055 D	ATE 10/27/05	· · · · · · · · · · · · · · · · · · ·	Meder	TIME:	1135	DATE: 10/27/05
PURGE		PUMP	Bladde				<b>8</b>	DUCTIVITY:	1434 umhos/cm
METHOD		BAILER			ORP:		mv DO:	L\$8 mg/L	
DEPTH T	O WATER:	7.15	T/ PVO-00		TURBID	TY: <u>14</u>	עדע	- <del></del>	<del></del>
DEPTH T	O BOTTON			<u> </u>	☐ NON		LIGHT [	MODERATE	☐ VERY
WELL VO			LITERS	GALLONS			14.85	°C OTHER	
	REMOVE		LITERS	☐ GALLONS	<del></del>		Floate		Jez
COLOR:		r w ru	est or floaties	oor: <u>Yes-</u> hydrocarb	<u> </u>	E (0.45 um)	☐ YES	NO NO	
TURBIDI	· · · · · · · · · · · · · · · · · · ·		MODERATE	□ VERY	I I I I I I I I I I I I I I I I I I I	COLOR:	S/MSD	FILTRATE O	DOR:
<u> </u>	AL METHOD		IND DERVIE		COMME				
	PURGE							HILL ERWATER	
· TIME	RATE	PH	CONDUCTOR	i (6);t=1.1		TURBINTY	S =MFIERA	LEVE	e lieuresvolums
1055	450	(SU) (G.OO	(um)(os/cm) (38/		(mg/l)   2	(NTU)	// (C)	7 7 G	
1100	730	5.85		161	3.27	61	14.8		
1105	<del>                                     </del>	5.82		43	2.54 1.31	39	<del></del>		
1110	+-{	5.79		14		28	14.9		<del></del>
1115	+ 1	5.80	1430	-12	1.94	26	14.9		
1120		5.82		<del> </del>	1.92	22	14.9		
1125	+ +	6.01	1438	-30	1.90	20	14.8		
11 30		5.96		-39 -42	1.65	16	14.9		
11 35	1	5.98		-44	1.58	14	14.8		
11		5.10	1137		1. 76	14	17.8	5 7.15	18.00
NOT	E- STABILI	ZATION TE	ETIS COMPLI	ETE WILLIA OU	005000/5				
pH: +/-		COND.: +/-		ETE WHEN 3 SU +/- 10 D.C	).: +/- 10	READINGS -/-TURB: +		IN THE FOLL( = 5</td <td>OWING LIMITS: TEMP.: +/- 0.5°C</td>	OWING LIMITS: TEMP.: +/- 0.5°C
ЕАТ	TLES III	PRESERV	ATIVE CODES						1 E.WIF +/- 0.3 C
	HED.	A - NO		HNO3 C	- H2SO4	D - Na	ЮН	E- HCL	F-NazSzO
NUMBER	SIZE	TYPE	PRESERVATI	<del> </del>	<del></del>	- <del></del>	TYPE	PRESERVA	<del> </del>
5	40ml	VOA	E		2	16	gl	C	
1	1	1	A		<del>                                     </del>	1	amb	F	□ Y X N
j	V	1	Ċ			1	PI	A	
HIDDING	METHOD:	<u> </u>	Dy D					<u> </u>	
	· · · · · · · · · · · · · · · · · · ·	Fed		TE SHIPPED:	1027/		AIRBIL	L NUMBER:	8534 1071
OC NUM			4420 SIG	SNATURE: 💊	Drenc	_1	1	SIGNED:	10/27/05



-								COMMUNICATION OF THE PROPERTY		
PROJECT NAME	: L.E.	Carpenter			ARED.		, chec	(ED)		
PROJECT NUMB	ER: 6527.	10	BY:	EV & JO	DATE:	DIOS BY		DATE: 11-14-		
SAMPLETER: S			WELL DIAME	TER: <b>\</b> \ <b>7</b>   2"		6" OTHE	R			
WELL MATERIAL	A116 45 3 4 DT   DE L	Mass [	IRON _ OTHE	A 31						
SAMPLE TYPE:	<u>∏</u> GW		]SW □DI		ACHATE	OTHE	R			
- Pureing.	TIME:							E. 20		
		Penista	NATE: 10 27 05			1		E 10 27 05		
PURGE L METHOD: _	X PUMP BAILER	renom	JAC	PH:			TIVITY: 46	5 umhos/cm		
DEPTH TO WATER			•	TURBIDI		NTÚ	1 • tilg/L			
DEPTH TO BOTTO		_T/ PV6 00		NONE			ODERATE	☐ VERY		
WELL VOLUME: NIT K LITERS GALLONS TEMPERATURE: 13.76 °C OTHER:										
VOLUME REMOVE	D: 12.5	X LITERS	GALLONS	COLOR:	_ Ck	0	DOR:			
COLOR:	clear	<u> </u>	DOR:	FILTRATE	(0.45 um)	YES X	NO			
TURBIDITY:	_5	122		FILTRATE			ILTRATE ODOF	<u>-</u>		
	LIGHT _	MODERATE	VERY		PLE: MS	S/MSD	DUP-	-		
DISPOSAL METHO	D ∐ GROU	IND KATORUK	/ OTHER	COMMEN	ITS:		<u> </u>			
TIME PURGE	PA	CONDUCTIVIT	Y ORE	D.D. 1 ('mg/L')		TEMPERATUR	WATER LEXEL (FEET)	. CUMULA;;ve Purge)vo) ume (Galori)		
1135 500	531	428	-24	1.22	5	14.38	8.61	INITIAL		
1140	5,70	466	-73	.94	3	14.00	10.8	25		
1145	5.78	467		.32	Q	13.9	7 8.61	5.0		
1150	5.78	465		. 21	2	13.90	10.80	7.5		
1155	5.70	466		,93	ſ	13.87	8.61	10.0		
1200	5.78	465		.94	]	13.96	8.61	12.5		
								-		
								· · · · · · · · · · · · · · · · · · ·		
NOTE: STABI	LIZATION TE	EST IS COMPL	ETE WHEN 3 SUC	CESSIVE F	READINGS	ARE WITHIN	THE FOLLOW	ING LIMITS:		
pH: +/- 0,1	COND.: +/-			: +/- 10	TURB: +/-			EMP.: +/- 0.5°C		
BOTETLES	PRESERV	ATIVE CODES		. "".						
	A - NO	NE B-	HNO3 C-	H2SO4	D - Na	OH E	- HCL	F-NazSzO		
NUMBER SIZE	TYPE	PRESERVAT	IVE FILTERED	NUMBER	SIZE	TYPE P	RESERVATIV	<del></del>		
3 40m	Yop	e	□ Y 🔀 N					□ Y □ N		
2 11	amb	F	□ Y 🔀 N					□ Y □ N		
			□ Y □ N		1			□ Y □ N		
SHIPPING METHOD	: Fed	Ex D	ATE SHIPPED:	107	7/05	AIRBILL	NUMBER: 85	34 Im 1		
COC NUMBER:				_	<del>-1</del>			7 7		
JOG NUMBEK:	0104	400 S	IGNATURE: 🔾	Usen	code	DATE SIG	ined: 10	127/05		



PROJECT NAME:	L. E. (	Carpenter			FRE			/n c	HEEKE		
PROJECT NUMBE	R: 6527.	10		BY:	EV & JO	DATE: 10	JOS BY		DAT	re: (1-14-	25
SAMPLE (D					ER:  2	- 4 -			A		
WELL MATERIAL:		SS		OTHE			<u></u> -				
SAMPLE TYPE:	☐ GW	□ww	<b>₩</b> sw [	] DI		EACHATE	□от	HER			]
- PURGING	TIME:		DATE:	/	SA.	Webs.	TIME: [	350	DATE:	10/27/05	]
PURGE	PUMP				PH: _	s	U CONE	DUCTIVITY	:	umitos/cm	1
	BAILER	\		=	ORP:	· · · · · · · · · · · · · · · · · · ·	IV DO:		10/1		-
DEPTH TO WATER:	2/	PVC			TURBIDI		NTU	N	<b>H</b>		
DEPTH TO BOTTOM	1	LITERS	GALL	ONE	☐ NONE		ent 📋	MODERA		☐ VERY	-
WELL VOLUME:		LITERS		<del></del>	TEMPER	ch ws	12 about 100	°C OTH	=R: _Nor		=
VOLUME REMOVED	/		ODOR:	.0113	T	E (0.45 um)		ODOR:	Mot	<u> </u>	=
TURBIDITY:	<del> </del>		ÇDON	<del></del>	FILTRATE			FILTRATE	: ODOB·		1
	GHT [	MODERATI	E 🗆 V	ERY		PLE: MS	/MSD	DUP-			1
DISPOSAL METHOD	GROU	ND DRI	UM DTHE	ER	COMME						1
	e.								ner II.e		
TIME RATE (MLANIN)	6U)	CONDITION					TEMPERA	LED	/EL   PU	RESERVATIONE	
		(uminos/en			(Ng/L)	(NITU)	(°C)	A ACE		(GALORIL) INITIAL	
				-		<u> </u>					4
											-
					_	/					-
						<u> </u>					1.
					An-	<del>}</del>		_		<del></del>	4
					- 14.						-
							· · · · · · · · · · · · · · · · · · ·	-			-
							-				-
			-	/				<del></del>			-
			·								
	·										]
NOTE: STABILE									· · ·		
	COND.: +/-		RP: +/- 10	ט.ט.:	+/- 10	TURB: +/-	10 OR	= 5</td <td>TEM</td> <td>P.: +/- 0.5°C</td> <td>_</td>	TEM	P.: +/- 0.5°C	_
EN BOTHLES :-		ATIVE CODE	- <del></del>	_						14 S_C	2
	A- NO		B - HNO3		H2SO4	D - Na		E- HCL		Marse	د
NUMBER SIZE	TYPE	PRESERV		ERED	NUMBER	SIZE	TYPE	PRESER	VATIVE	FILTERED	1
3 40ml	AOV	E	Y	<del></del>					[	Y	1
2 14	amb	F	□ Y	N <b>SÇ</b>	<u> </u>				[	YN	]
			\Y	□ N			, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		[	_ Y _ N	]
SHIPPING METHOD:	Fed	ex	DATE SHIPP	PED:	10/27	05	AIRBIL	L NUMBER	R 853	4 1071	66
COC NUMBER:	0104	OSY	SIGNATURE	. 0	Ores	roorde	DATE	SIGNED:	10/2	7/05	
			· · · · · · · · · · · · · · · · · · ·				<del></del>			<del></del>	1

# RMT.

				·										
PROJECT N	IAME:	L. E. (	Carpenter				(EP)AF(E			$\nearrow$		CKE	D.	
PROJECT N	NUMBE	R: 6527.	10		BY:	EV &	JO DATE	10/27	OSBY	(A)		DA <sup>*</sup>	TE( \-) \-	کل
SAMPLE (ID)	1	:JW			WELL DIAM	IETER:	2"  4"	' □ 6	• <b>Ø</b> or	THER	NA	<u> </u>		$\bar{T}$
WELL MATE	ERIAL:	☐ PVC	□ss		N 🔀 OTI		NA	r.	•					-
SAMPLE TY	PE:	□ GW	□ww	X sw	' □ DI	<del>_</del> `	LEACHA	TE	O1	THER				
PURGI	NG	TIME:		DATE:		7	AMPLE	1	ГІМЕ:	140	<b>P</b> [	DATE:	1027/05	7
PURGE		PUMP			$\angle$	PH:		_ SU	CON	DUCTI			umhos/d	
METHOD:		BAILER		_/		ORP:		mv	DO:		ang/L			
DEPTH TO W	VATER:		T/ PVC			TURB	IDITY:		_ NTU	IV	1			
DEPTH TO B	OTTOM	- 1/2 - 1/2	TI PVC				DNE [	SLIG	HI P	MOD	ERATE		VERY	_
WELL VOLUM	νE:	<u></u>	LITERS		GALLONS	TEMP	ERATURE			_ °C (	OTHER:			
VOLUME REI	MOVED		LITERS		GALLONS	COLC	R: Ur W	SH -	turbid	ODO	R: _	N	ane _	
COLOR:	/		<del></del>	ODOR:		_ FILTR	ATE (0.45	um) [	YES	K 1	<b>1</b> 0			
TURBIDITY		· · · · · · · · · · · · · · · · · · ·		-		<del></del>	ATE COLOF			FILT	RATE OD	OR:		
NOME		IGHT 🔲	MODERAT		VERY	<del> </del>	AMPLE:	] MS/N	ISD		DUP-			
DISPOSAL M	ETHOD	GROU	ND   DR	UM 🔲	OTHER	СОМІ	MENTS:							
	Wree.	jek j	CONDUCTA	иту	ORE	DO.	TURBID	ITY T	EMPERA	au Jacel	WATER			
	ALAMIN)	(SU)	(umhos/cr	n   .	r(m)V)	, (mg/L)	(NTU		(40)		(CEST)		Reizyoniki Kraliokin	
			·		7,000	Cartin Shoot Carry Miles	i manufulus anniames	, annual man		anximiananing a		in allera	INITIAL	
		, , , , , , , , , , , , , , , , , , , ,				··········				$\rightarrow$		+		+
			-						/			-	<del>.</del> <u></u>	+
									·			-		$\dashv$
			<del> </del>						·			-		-
-						100						-		4
						NY							·	_
				4		10							<u> </u>	╛
								- 1						
		-												
NOTE: S	TABILI	ZATION TE	ST IS COM	PLETE \	WHEN 3 SU	JCCESSIV	E READIN	IGS AF	RE WITH	IN THE	FOLLO	Wind	S I IMITS:	_
pH: +/- 0.1		OND.: +/-		RP: +/- 1		D.: +/- 10		: +/- 10		= 5</td <td></td> <td></td> <td>P.: +/- 0.5°C</td> <td>;</td>			P.: +/- 0.5°C	;
	-8	PRESERV	ATIVE COD	ES									. 3.5	_
		A - NO		B- HNC	) <b>3</b> C	- H2SO4	n.	NaOF	ł	E-	ICI		Nazsz	93
NUMBER S	SIZE	TYPE	PRESERV		FILTERED				TYPE	1	SERVAT		FILTERED	-
3 4	Oml	YOA	E		☐ Y 🗷 N								☐Y ☐N	+
	L	amb	Ö		_ <u>/~</u> _ Y					<del>                                     </del>	<del></del>		N	┥
												L		4
						<u>'                                     </u>			<del></del> _	<u></u>			Y	
SHIPPING ME	THOD:	<u>Fed</u>	E <sub>X</sub>	DATE S	HIPPED:	10/2	7/05	<del></del> -	AIRBIL	L NUM	1BER: <u>8</u>	531	1 1071	9
COC NUMBER	₹:	0104	420	SIGNAT	URE:	40jre	moon	de		SIGNE			27/05	
		<u> </u>	• • •			VE	7,000	<u>~~</u>					C1103	_



PROJECT NAME:	L. E.	Carpenter		- 75					
PROJECT NUMBE	ER: 6527.	10	B'	Y: EV&	JO DATE: 10	27 65 BY:		DATE: 11-1-4-05	
SAMPLEHDY		Q	WELL DIA				150		] ]
WELL MATERIAL				METER:	2" 💢 4" 🗌	] 6" □OTH	1EK		
SAMPLE TYPE:	₩ GW	<u>.</u> SS ☐ WW	☐ IRON ☐ O	THER	LEACHATE	□оть	(EB	· · · · · · · · · · · · · · · · · · ·	1
- Purene T	TIME:	1530	DATE: 10/27/0	<del></del>	ni mengan dan manan kanawa ka			1 /	] 1
	PUMP	GED	Bladder		AMPLE:::		555 D	ATE: 90/27/05	- mus
METHOD:	BAILER		Dividio.	PH: ORP:			UCTIVITY: /c	505 umhos/cm	Ferrous Fe = 7 pm
DEPTH TO WATER			<u>oc</u>	TURB		NTU	<u> </u>	•	re- "
DEPTH TO BOTTOM	16.57	T/ PVC	o C	NO XX	NE SI		MODERATE	☐ VERY	01K = 110
WELL VOLUME:	20.94	LITERS		S TEMPE	RATURE: _	15.d	°C OTHER:		A1K = 100
VOLUME REMOVED							ODOR:		n = 18
	wy floo	HICS	ODOR: Yes-	FILTRA	ATE (0.45 um)	YES !	NO		CO2 ppm
TURBIDITY:SI	IGHT $\square$	MODERAT	Sevier/40			S/MSD [	FILTRATE OD:	OR:	<b>, '</b> '
DISPOSAL METHO		ND X DR			IENTS:	S/MSD [			<u> </u>
									]
RATE	PH (SU)	CONSTICUTOR		D.D. (me/L)	TURBIDITY TOTAL	TEMPERATI		CUMULATIVE PURGEVOLUME (GALOFT)	AD Attachments
15 <sup>30</sup> 350	6.11	105	2 147	4.43		13.6		INITIAL	
1535	6.33	962	2 112	4.92	9	14.83		1.75	
1540	6.35	975	5 106	5.37	6	14.9:	3 8.10	3 <b>.5</b> 0	
1545	6.46	990	100	5.35	5	14.94	1 8.10	5.25	
1550	6.40	999	3 96	5.32	4	14.9-	7 8.10	7.00	
1555 V	6.47	100	5 87	5.34	4	15.0	8.10	8.75	
		<u> </u>			<del></del>				
		! 						·	
			PLETE WHEN 3 S				THE FOLLO	WING LIMITS:	
100000000000000000000000000000000000000	COND.: +/-			.O.: +/- <b>10</b>	TURB: +/-	10 OR <	= 5</td <td>TEMP.: +/- 0.5°C</td> <td></td>	TEMP.: +/- 0.5°C	
. Bot les :: Filled		ATIVE CODE						F. NazSzC	)3
NUMBER SIZE	A - NO	PRESERVA		C - H2SO4 D NUMBE	D - Na		E- HCL		
5 40ml	YOA	E	□ Y <b>X</b>	:	R SIZE	TYPE	PRESERVATI		1-120ml
	1	A	□ Y <b>X</b>		1	amb	<u>C</u> F	Y X N	dif
1	V	<del>-</del> C				PI	A	□ Y <b>Q</b> N	•
SHIPPING METHOD:	Fed	Ex	DATE SHIPPED:	10/27	105	-		C2U 1/17	6613
COC NUMBER:	0104		SIGNATURE:		remood	<del>-   </del>		10/27/05	6602
			<del></del>					1010103	



							-		_
PROJECT NAME:	L. E. C	arpenter		PR				iekch) ji	
PROJECT NUMBE	R: 6527.	10	BY	: EV &	JO DATE: 101	17/05 BY!	U	DATE: 11/14/05	1
SAMPLE (DX )			WELL DIAM	METER:	2"	6" □ОТН	IÉR		]
WELL MATERIAL:	☐ PVC	⊠rss	☐ IRON ☐ OT	HER					1
SAMPLE TYPE:	<b>⊠</b> GW	□ww	□sw □ di		LEACHATE	□отн	IER		]
- Purenci	TIME:	635	DATE: 10 27 0	<b>5</b> s	aveletti	TIME:	700	DATE: 10/27/05	1
PURGE 2	PUMP		Bladder	PH:	6.27 s	U COND	UCTIVITY:	216 umhos/cm	مسر
METHOD:	BAILER		,	ORP:	217 n	nv DO:	.84 mg/L		Laury!
DEPTH TO WATER:	7,90	T/ PVC C	×	TURB	DITY: 10	NTU			Ferrows Fe = 0.1 Fe = 0.1 Fe = 0.1 Fe = 0.1
DEPTH TO BOTTOM	15.49	T/ PWG (	)C	₩ NO	NE 🗌 SLI	IGHT 🗌	MODERATE	☐ VERY	1
WELL VOLUME:	4.68	LITERS	☐ GALLONS	TEMPE	RATURE:	15.15	°C OTHER:		2/K= 2
VOLUME REMOVED	10	LITERS	☐ GALLONS	COLO	R: Clea	<u>ч</u>	ODOR:		] /7
COLOR: clea			ODOR:	FILTRA	ATE (0.45 um)	YES [	NO .		] -0 = 1
TURBIDITY:	<u>37</u>	· · · · ·		FILTRA	TE COLOR:		FILTRATE O	OOR:	] (Or &
☐ NONE 🔀 SL		MODERATE		QC SA	MPLE: MS	MSD [	DUP-		] '
DISPOSAL METHOD	GROU	ND X DRU	JM 🗌 OTHER	COMM	IENTS:				
TIME PURGE RATE (MEMIN)	원.	CCNDUCTIV (Umhos/ar		(ii) (b) (ii) (iii) (iii) (iii)	TUPBERTY		, LEVEL	PLIKEEWOLUME	
1635 400	6.65	807	85	3.35	37	11.50		The state of the s	
1640	6.36	214		2.08	25	15.29	+		-
1645	6.27	214		2.00	20	15.3		-	1
1690	6.30	- 1		1.91	15	15.3		<del></del>	1
1655	6.29	215				<del></del>			-
1700	T			1.89	10	15.2	_ I		-
	6.27	214	217	1.84	10	15.19	5 7.90	0 10	-
· ·		<del></del>							1
									] "
									]
NOTE: STABILI	ZATION TE	ST IS COM	PLETE WHEN 3 S	UCCESSIV	E READINGS	ARE WITHIN	N THE FOLL	OWING LIMITS:	•
pH: +/- <b>0.1</b>	COND.: +/-	10 OF	RP: +/- 10 D.	.O.: +/- <b>10</b>	TURB: +/-	10 OR	= 5</td <td>TEMP.: +/- 0.5°C</td> <td></td>	TEMP.: +/- 0.5°C	
BOTTLES	PRESERVA A - NO	ATIVE CODE		C - H2SO4	D - Na	∩⊔	E- HCL	F. NazSeO	3
NUMBER SIZE	TYPE	PRESERVA	<del></del>			· · · · · · · · · · · · · · · · · · ·	PRESERVA	TIVE FILTERED	
5 40ml	VoA	E				gl	C	<del></del>	1-120m
1 1	1	A		<del></del>	1	amb	F	<u> </u>	PIZE
						PI		— <del>— —</del>	"
							A		j
SHIPPING METHOD:	_ Fed		DATE SHIPPED:	10/37			NUMBER: 9	534 1071	6613
COC NUMBER:	010	1420	SIGNATURE:	١	ervoords	L DATES	IGNED:	10/27/05	3000



### **WATER SAMPLE LOG**

PROJECT NAME: L. E. Carpenter		PREPARED	CHE	ick≡d .,
PROJECT NUMBER: 6527.10	BY:	EV & JO DATE: 10/27	OS BY	DATE: 11/14/05
SAMPLE DX RB-1	WELL DIAMETE	R: 2" 4" 6"	POTHER NA	
WELL MATERIAL: PVC SS IR	ON <b>X</b> OTHER	MA		
SAMPLE TYPE: GW WW SV	v ⊠DI	LEACHATE	OTHER	
PURGING TIME: DATE		SAMPLE	ME: 1800	DATE: [0 27/05
PURGE PUMP		PH: SU	CONDUCTIVITY:	umhos/cm
METHOD: BAILER	-	ORP: mv	DO:mo/t	
DEPTH TO WATER:		TURBIDITY:	NTU	•
DEPTH TO BOTTOMVI7/ BVC		□ NONE □ SLIGH		☐ VERY
WELL VOLUME: LITERS		TEMPERAPURE:	°C OTHER:	
VOLUME REMOVED: LITERS		COLOR:	ODOR:	
COLOR: ODOR		FILTRATE (0.45 um)	1	
TURBIDITY: MODERATE		FILTRATE COLOR:	FILTRATE OF	DOR:
NOME SLIGHT MODERATE  DESPOSAL METHOD GROUND DRUM □		QC SAMPLE: MS/MS	SD DUP	
<i>Y</i>	OTHER	COMMENTS:		
TIME PURGE PH CONDUCTIVITY			MPERATIURE WATER LEVEL	PUBERVOUME
(MEMIN) (SU) (umitos/cm)	(m)() (in	ng/L) L.: (ATU)	(CC) (FEET)	(GAL OR L)
				MILIAL
		$\Lambda$		
		, 0		
NOTE: STABILIZATION TEST IS COMPLETE	WHEN 3 SUCC	ESSIVE PEADINGS ARE	WITHIN THE EQ. (	NATING LIMITS.
pH: +/- 0.1 COND.: +/- 10 ORP: +/-			OR = 5</td <td>TEMP.: +/- 0.5°C</td>	TEMP.: +/- 0.5°C
ziannies jiinus paines ispusais sentimine examinid			J., 4- 0	
BOTTLES PRESERVATIVE CODES FILLED A - NONE B - HN	<b>∪3</b>	H2SO4 D - NaOH	E 1101	F. Nazsi03
NUMBER SIZE TYPE PRESERVATIVE		<del></del>	E - HCL TYPE   PRESERVAT	
5 40ml voa E				1 ' 1
3 40M VOA 2	_ 75		d C	□ Y X N 1-
			mb F	
	□ Y <b>X</b> N		PI A	□ Y X N
	SHIPPED:	10/27/05	AIRBILL NUMBER:	534 1071 64
COC NUMBER: OLDY470 SIGNA	TURE:	Drenoode	DATE SIGNED:	10/27/05
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Where quality is a science. Acct. # Groups			oup#_	p#Sample #							COC # 0104608									
<u> </u>		ease print. Instri	uction	ns on	rever	se sic	de co	orres	spond	with ci	ircled	numb	ers.							
Client: RIM LE Car penter/65  Project Manager: N. Cleve++  Sampler: SOLE V	<i>)^), 0</i>  PWSID P.O.#: Quote#	#:		_		Potable Check II NPDES Applicable XX		ntainers (C		5		/	アルペナ	Anal	/	Req	uest	ed	For Lab Use FSC: SCR #: 21.	Only  2 7, \$ 6 ss as sent
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E-mail address:					quisl							Dat	е	Time	Red	celve	d by:		Date	e Time
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COC # 0104608



	For Lancas	iter Laboratories use only	
Acct. #	Group#	Sample #	<b>COC</b> # 0104422

1)	Ple	ease print, Instru	ıctions	on rev	erse :	side c	юпе	spond	with c	ircled	numb	ers.						•	
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Project Name/#: LECarpenter/6	<u>≦</u> 27./0 <u>≥2</u> PWSID	#:			Kif		ľ		•		7	7	7	7	$\overline{}$	7	15/1	FSC: SCR #: 2/2	25
Project Manager: Nick Cleve#					Chec		2		/	/ ,	/ ,						/S/ <b>/</b>		6
Sampler: SO/EV	Quote #				able NFS		aine		- K	ι /			/ /	' . <i> </i>	/ /	(n /	14/		88
Name of state where samples were collected:	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				Potable Checkif		1		1							Ĭ//	<b>%/ /</b>		ampi
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2)	Date	Time	Grab		Water	ler	Total#				24/2	3/		2./	Ž/	Q]/		,	
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Type III (NJ Red. Del.) Internal Chain of Type IV (CLP)				inquis	sned	Dy:					Date	7	lime	Rec	eived	by:		Date	Time
Type IV (CET)		<del></del>										$\perp$							



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Where quality is a science.	Acct. #	Grou	p#Sample #						COC # 0104419							
1)	Ple	ease print. Instruc	tions or	reverse	side corr	espon	d with c	ircled	numbe	ers.						
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Project Name/#: LE Carpenter / 6527	JO PWSID	#		Potable Check if	I Y	6. 관 사	C	7	7	7	/ /	7	$\overline{}$	7/7	FSC: SCR #:	
Project Manager:				Shect				/	/ /	/n/				/ / <b>/</b>		<u>(6)</u>
Sampler: 30/65 V		· · · · · · · · · · · · · · · · · · ·		eg (			_/		/ /,	17/		/ /	/ -/	/ / /		N <sub>s</sub>
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2					-  C	/	10/2 6/2	# 12 / C	1	$\frac{1}{2} / \frac{1}{2}$	XQ,		(\$)			
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Type IV (CLP)											ľ					

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Where quality is a science.	Acct. #	Gro	Sample #				<b>COC #</b> 0104420													
(1)	Pi	ease print. Instru	ctions	s on 1	reverse s	side con	espor	d with o	ircled	numb	ers.									
Client: KMT, Inc.  Project Name#: LE Car xm &r/65	Acct. #:				Mätri			(5	)/	7	7	Anal	yses	Rec	juest	ed /	7	For Lab	) Use O	nly
Project Manager: Nick Clove++					Check if Abolicable											131		FSC: SCR #:		$\sim$
Sampler: O/EV				-	Sie A'G	9000	Property Services			/· /	′ /	/ - /	/ ,	/ ,	/ /	[5]				<b>6</b>
		#:		-	Potal			£	.\a	g/					(0   f	27	/			mples
Name of state where samples were collected:	103		3)	<b>a</b>		],   <b>`</b>		/ 4	10	~/	/ (3)		/							of sa
2   Sample Identification	Date Collected	Time Collected	Grab (	Compos	Soil   Potable Che   Water   NPDES App	Other. Fotal # c	/,	Z)u					H			Par	narks			mperature
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2W-R-2		1400	++	+	++-	5	1	<del> </del>			$\frac{\alpha}{X}$		X							
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Type II (Tier II) Other (If yes, indicate QC si	ample and submit	triplicate volume.)	Re	elina	uished l					Date	+	ime	Poo	oives	l be				Deta	Time -
Type III (NJ Red. Del.) Internal Chain of Type IV (CLP)	Custody requ	ired? Yes No				-1.				Date	'	me	VAC	GIVEC	ı by:			1"	Date	Time

# Appendix E 4<sup>th</sup> Quarter 2005 Laboratory Analytical Report



#### ANALYTICAL RESULTS

Prepared for:

RMT, Inc. PO Box 8923 Madison WI 53708-8923

608-831-4444

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

#### **SAMPLE GROUP**

The sample group for this submittal is 964786. Samples arrived at the laboratory on Wednesday, October 26, 2005. The PO# for this group is 6527.10.

Client Description
MW-19-10 Grab Water Sample
Trip Blank Water Sample

<u>Lancaster Labs Number</u> 4632947 4632948

#### **METHODOLOGY**

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

RMT, Inc.

1 COPY TO

Data Package Group

Attn: Nicholas J. Clevett





Questions? Contact your Client Services Representative Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,

Michele J. Smith Group Leader



Page 1 of 2

Lancaster Laboratories Sample No. WW 4632947

MW-19-10 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 09:05

by JO

Account Number: 09322

Submitted: 10/26/2005 15:15

RMT, Inc. PO Box 8923

Reported: 11/11/2005 at 08:52

Madison WI 53708-8923

Discard: 12/12/2005

19-10 SDG#: LEC51-01

	•			As Received		
CAT			As Received	Method		Dilution
Ņo.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00307	Heterotrophic Plate Count	n.a.	56.	1.	cfu/ml	n.a.
	The sample was plated by Earl (	Custer on 10-27	7-05 by 0855.			
00206	Total Suspended Solids	n.a.	17.2	3.0	mg/l	. 1
00212	Total Dissolved Solids	n.a.	654.	19.4	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	N.D.	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/l	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	1
00228	Sulfate	14808-79-8	15.3	1.5	mg/l	5.
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	3.2 ј	2.0	ug/l	1
07107	Ethane	74-84-0	N.D.	1.0	ug/l ug/l	1
07108	Ethene	74-85-1	6.4	1.0	ug/l	.1
07109	Propane	74-98-6	7.4	1.0	ug/1 ug/1	1
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	06	/ 3	
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
-				0.2	ug/l	1
00553	Base Neutrals			•		
.00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	i

State of New Jersey Lab Certification No. PA011

Laboratory Chronicle

CAT No.

Analysis Name

Method

Analysis Trial# Date and Time

Analyst

Dilution Factor





Page 2 of 2

#### Lancaster Laboratories Sample No. WW 4632947

MW-19-10 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 09:05 by JO

Account Number: 09322

Submitted: 10/26/2005 15:15 Reported: 11/11/2005 at 08:52

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

19-10	SDG#: LEC51-01					
00307	Heterotrophic Plate Count	Std Meth 9215B 19th ed 1995	1	10/29/2005 09:44	Earl R Custer	n.a.
00206 00212 00219 00220 00221 00227	Total Suspended Solids Total Dissolved Solids Nitrite Nitrogen Nitrate Nitrogen Ammonia Nitrogen Total Phosphorus as P (water)	EPA 160.2 EPA 160.1 EPA 353.2 EPA 353.2 EPA 350.2 EPA 365.1	1 1 1 1 1	10/31/2005 10:59 10/31/2005 15:14 10/26/2005 20:17 11/08/2005 19:43 10/31/2005 16:00 11/01/2005 10:22	Anne L Kuenzli Anne L Kuenzli Kristina E Kleintop Kristina E Kleintop Luz M Groff Venia B McFadden	1 1 1 1 1
00228 07105 08238	Sulfate Volatile Headspace Hydrocarbon BTEX (EPA 602)	EPA 300.0 SW-846 8015B, modified EPA 602	1 1	11/04/2005 20:03 10/28/2005 03:47 11/01/2005 08:12	Shannon L Phillips Robert I Pusch Martha L Seidel	5
00553 08108 08263	Base Neutrals 625 Water Extraction Total Phos as P Prep (water)	EPA 625 EPA 625 EPA 365.1	1 1 1	11/03/2005 02:39 10/27/2005 17:10 10/28/2005 15:00	Brian K Graham Olivia I Santiago Nancy J Shoop	1 1 1



Page 1 of 1

Lancaster Laboratories Sample No. WW 4632948

Trip Blank Water Sample L.E. Carpenter, NJ

Collected: n.a.

Account Number: 09322

Submitted: 10/26/2005 15:15 Reported: 11/11/2005 at 08:52

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

LECTB SDG#: LEC51-02TB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538 07029 07030 07031	Total Xylenes Benzene Toluene Ethylbenzene	1330-20-7 71-43-2 108-88-3 100-41-4	N.D. N.D. N.D.	0.6 0.2 0.2 0.2	ug/l ug/l ug/l ug/l	1 1 1

State of New Jersey Lab Certification No. PA011

Lahoratory	Chroniclo
Laboratory	! nronicla

CAT	·	202010101	- y CIII O	TITCIE		
No. 08238	Analysis Name BTEX (EPA 602)	Method EPA 602	Trial#	Analysis Date and Time 10/31/2005 18:34	<b>Analyst</b> Martha L Seidel	Dilution Factor 1





Page 1 of 4

#### Quality Control Summary

Client Name: RMT, Inc.

Reported: 11/11/05 at 08:52 AM

Group Number: 964786

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 05299105102B	Sample	number(s):	4632947					
Nitrite Nitrogen	N.D.	0.015	mg/l	100		90-110	,	
Batch number: 053000028A	Sample	number(s):	4632947					•
Methane	N.D.	2.0	ug/l	107		80-120		
Ethane	N.D.	1.0	ug/l	112		80-120		
Ethene	N.D.	1.0	ug/l	118		80-120		
Propane	N.D.	1.0	ug/l	111		73-125		
Batch number: 05300WAC625	Sample	number(s):	4632947					
bis (2-Ethylhexyl) phthalate	N.D.	1.	ug/1	90	93	68-111	3	30
Batch number: 05301109101A	Sample	number(s):	4632947					
Total Phosphorus as P (water)	N.D.	0.080	mg/1	107		89-110		
Batch number: 05302A56A	Sample	number(s):	4632948					
Total Xylenes	N.D.	0.6	ug/1	108	109	00 100	_	
Benzene	N.D.	0.2	ug/l	100	109	82-120	0	30
Toluene	N.D.	0.2	ug/l	100	101	86-119	1	30
Ethylbenzene	N.D.	0.2	ug/l	106	101	82-119 81-119	1 0	30 30
Batch number: 05302A56B	Sample	number(s):	4632947		•			
Total Xylenes	N.D.	0.6	ug/l	108	109	00 100	_	
Benzene	N.D.	0.2	ug/l	100	103	82-120 86-119	0	30
Toluene	N.D.	0.2	ug/l	100	101		1	30
Ethylbenzene	N.D.	0.2	ug/l	106	106	82-119 81-119	1 0	30 30
Batch number: 05304020601A	Sample	number(s):	4632947					
Total Suspended Solids	N.D.	3.0	mg/l	83		56-128		
Batch number: 05304021202A	Sample	number(s):	4632947	•				
Total Dissolved Solids	15.0 J	9.7	mg/l	105		80-120	•	
Batch number: 05304022101A	Sample	number(s):	4632947					
Ammonia Nitrogen	N.D.	0.11	mg/l	98	97 .	91-100	1	1
Batch number: 05308401301B	Sample	number(s):	4632947					

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The background result was more than four times the spike added.





Page 2 of 4

#### Quality Control Summary

Client Name: RMT, Inc.

Group Number: 964786

Reported: 11/11/05 at 08:52 AM

### Laboratory Compliance Quality Control

Analysis Name Sulfate	Blank Result 0.36 J	Blank MDL 0.30	Report Units mg/l	LCS %REC 105	LCSD %REC	LCS/LCSD Limits 90-110	RPD	RPD Max
Batch number: 05312106101B Nitrate Nitrogen	Sample nu	umber(s): 0.040	4632947 mg/l	102		89-110		

#### Sample Matrix Quality Control

Analysis Name	MS REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 05299105102B Nitrite Nitrogen	Sample 97	number	(s): 4632947 90-110	7		N.D.	N.D.	<del></del>	<del></del> .
Bababaa a a a a a a a a a a a a a a a a						. N.D.	N.D.	0 (1)	20
Batch number: 053000028A Methane	Sample	number	(s): 4632947	,					
	106	99	63-124	5	20		ć.		
Ethane	102	107	63-127	5	20			•	
Ethene	105	113	69-126	7	20				
Propane	94	105	56-136	9	20				
Batch number: 05301109101A	Sample	number	(s): 4632947	,					
Total Phosphorus as P (water)	108	number (							
- via interpretable as I (water)	108		90-110			0.083 J	N.D.	8* (1)	3
Batch number: 05302A56A	Sample	number (	s): 4632948					•	
Total Xylenes	116		80-134						
Benzene	109		78-131						
Toluene	109		78-129						
Ethylbenzene	114		75-133						
Batch number: 05302A56B			•						
motel Mumber: 05302A56B	Sample	number(	s): 4632947						
Total Xylenes Benzene	116		80-134						
· · · · · · · · · ·	109		78-131						
Toluene	109		78-129						,
Ethylbenzene	114		75-133						
Batch number: 05304020601A	Sample	number/	s): 4632947						
Total Suspended Solids	Jumpic	mwer (	3). 403234/						
•						97.3	94.7	3 (1)	20
Batch number: 05304021202A	Cample 2		-\ . 460004=						
Total Dissolved Solids		107	s): 4632947	_					
	93	107	60-140	5	5	1,730.	1,750.	1	5
Batch number: 05304022101A	Sample	number (	s): 4632947						
Ammonia Nitrogen	2	manwer (.	3/. 403294/						
•						11.3	11.3	. 0	2
Batch number: 05308401301B	Sample	number/	s): 4632947						
Sulfate	106				*				
	100		90-110			62.1	62.8	1	3

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.





Page 3 of 4

#### Quality Control Summary

Client Name: RMT, Inc.

Group Number: 964786

Reported: 11/11/05 at 08:52 AM

#### Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD
Batch number: 05312106101B Nitrate Nitrogen	Sample 113*	number	(s): 463294 90-110	17		N.D.	0.12	200* (1)	2

#### Surrogate Quality Control

Analysis Name: Volatile Headspace Hydrocarbon

Batch number: 053000028A

Propene

Limite	AD-130	 	 		 		
MSD	109		•				
MS	95				*	,	
LCS	107						
Blank	108						
4632947	100			· · · · · · · · · · · · · · · · · · ·	 		 

Analysis Name: Base Neutrals

Batch number: 05300WAC625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
4632947 Blank LCS LCSD	80 85 88 89	88 90 93 91	84 87 96 94
Limits:	48-117	62-111	45-132

Analysis Name: BTEX (EPA 602) Batch number: 05302A56A

Trifluorotoluene-P

4632948	100
Blank	100
LCS	101
LCSD	101
MS	102

Limits: 69-129

Analysis Name: BTEX (EPA 602) Batch number: 05302A56B

Trifluorotoluene-P

- \*- Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



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Page 4 of 4

### Quality Control Summary

Client Name: RMT, Inc.

Reported: 11/11/05 at 08:52 AM

Group Number: 964786

#### Surrogate Quality Control

Limits:	69-129		 	 	 
MS	102				
LCSD	101				
LCS	101				
Blank	101	,			
4632947	100				

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The background result was more than four times the spike added.





For Lancaster Laboratories use only

Group#964786 Sample # 4633947-48 COC # 0104608

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#### ANALYTICAL RESULTS

Prepared for:

RMT, Inc. PO Box 8923 Madison WI 53708-8923

608-831-4444

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

#### **SAMPLE GROUP**

The sample group for this submittal is 964888. Samples arrived at the laboratory on Thursday, October 27, 2005. The PO# for this group is 6527.10.

Client Description	Lancaster Labs Number
MW-19-11 Grab Water Sample	4633487
MW-19-2 Grab Water Sample	4633488
MW-19-1 Water Sample	4633489
SW-D-1 Grab Water Sample	4633490
SW-D-2 Grab Water Sample	4633491
SW-D-3 Grab Water Sample	4633492
ATM-01 Blank Water Sample	4633493
DUP-01 Grab Water Sample	4633494
Trip Blank Water Sample	4633495

#### **METHODOLOGY**

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

RMT, Inc.

1 COPY TO

Data Package Group

Attn: Nicholas J. Clevett



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Questions? Contact your Client Services Representative Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,

Michele J. Smith Group Leader



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Page 1 of 2

Lancaster Laboratories Sample No. WW 4633487

MW-19-11 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 10:45

by JO

Account Number: 09322

Submitted: 10/27/2005 09:10 Reported: 11/11/2005 at 10:24 Discard: 12/12/2005

RMT, Inc. PO Box 8923

Madison WI 53708-8923

M1911 SDG#: LEC52-01

				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00307	Heterotrophic Plate Count	n.a.	80.	1.	cfu/ml	ņ.a.
	The sample was plated by Kim S	mall on 10-27-0	05 by 1045.	•		
00206	Total Suspended Solids	n.a.	15.2	3.0	mg/l	- 1
00212	Total Dissolved Solids	n.a.	854.	38.8	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	N.D.	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	0.32 ປ	0.11	mg/l	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	1
00228	Sulfate	14808-79-8	25.5	1.5	mg/l	5
07105	Volatile Headspace Hydrocarbon				,	
07106	Methane	74-82-8	440.	20.	uq/l	10
07107	Ethane	74-84-0	N.D.	1.0	ug/1	1
07108	Ethene	74-85-1	N.D.	1.0	ug/1	ī
0710 <del>9</del>	Propane	74-98-6	N.D.	1.0	ug/l	1
08238	BTEX (EPA 602)		•			
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	1. J	0.9	ug/l	1

State of New Jersey Lab Certification No. PA011

<b></b>	Laboratory Chronicle								
CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor			
00307	Heterotrophic Plate Count	Std Meth 9215B 19th	ed 1	10/29/2005 12:43	Kimberly A Small	n.a.			
00206 00212	Total Suspended Solids Total Dissolved Solids	EPA 160.2 EPA 160.1	1	10/31/2005 10:59 10/31/2005 15:14	Anne L Kuenzli Anne L Kuenzli	1			
00219	Nitrite Nitrogen	EPA 353.2	ī	10/27/2005 17:03	Kristina E Kleintop	1			



Account Number: 09322

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by JO

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Lancaster Laboratories Sample No. WW 4633487

MW-19-11 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 10:45

	tted: 10/27/2005 09:10 ted: 11/11/2005 at 10:24			MT, Inc.			
				PO Box 8923			
Disca	rd: 12/12/2005		Ņ	Madison WI	53708-	8923	
M1911	SDG#: LEC52-01						
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005	19:13	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	11/01/2005		Luz M Groff	-
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005		Venia B McFadden	1
00228		EPA 300.0	1	11/04/2005	20-17	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005		Robert I Pusch	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/08/2005	17:07	Robert I Pusch	10
08238	BTEX (EPA 602)	EPA 602	1	11/01/2005 (	12.17	Steven A Skiles	1
00553	Base Neutrals	EPA 625	1	11/03/2005 2		Brian K Graham	1
08108		EPA 625	1	10/28/2005 1			+
08263	•	EPA 365.1	ī	10/28/2005		Kerrie A Greenfield Nancy J Shoop	1



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Lancaster Laboratories Sample No. 4633488

MW-19-2 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 14:05

by JO

Account Number: 09322

Submitted: 10/27/2005 09:10 Reported: 11/11/2005 at 10:24 Discard: 12/12/2005

RMT, Inc. PO Box 8923

Madison WI 53708-8923

M192T SDG#: LEC52-02

CAT		,	As Received	As Received		
No.	Analysis Name	CAS Number	As keceived Result	Method		Dilution
		CAS NUMBER	result	Detection Limit	Units	Factor
00307	Heterotrophic Plate Count	n.a.	220.	1.	cfu/ml	n.a.
	The sample was plated by Kim S	mall on 10-27-0	05 by 1050.			
00206	Total Suspended Solids	n.a.	N.D.	3.0	mg/l	1
00212	Total Dissolved Solids	n.a.	864.	38.8	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	0.78	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/1	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	1
00228	Sulfate	14808-79-8	60.3	1.5	mg/l	5
07105	Volatile Headspace Hydrocarbon			•		
07106	Methane	74-82-8	35.	2.0	ug/l	1
07107	Ethane	74-84-0	N.D.	1.0	ug/1	1
07108	Ethene	74-85-1	N.D.	1.0	ug/1 ug/1	
07109	Propane	74-98-6	N.D.	1.0	ug/l ug/l	1 1
08238	BTEX (EPA 602)			·		
05538	Total Xylenes	1330-20-7	3.3	0.6	(7	_
07029	Benzene	71-43-2	N.D.	0.8	ug/l	1
07030	Toluene	108-88-3	2.7	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	1. J	0.2	ug/l ug/l	1
00553	Base Neutrals				- <b>J.</b> -	-
00669	bis(2-Ethylhexyl)phthalate	117-81-7	Ņ.D.	1.	ug/l	1
					*	

State of New Jersey Lab Certification No. PA011

O	Laboratory Chronicle							
CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor		
00307	Heterotrophic Plate Count	Std Meth 9215B 19th 1995	eđ 1	10/29/2005 12:43	Kimberly A Small	n.a.		
00206 00212	Total Suspended Solids Total Dissolved Solids	EPA 160.2 EPA 160.1		10/31/2005 10:59	Anne L Kuenzli	1		
00219	Nitrite Nitrogen	EPA 353.2		10/31/2005 15:14 10/27/2005 17:07	Anne L Kuenzli Kristina E Kleintop	1 1		



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Lancaster Laboratories Sample No. WW 4633488

MW-19-2 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 14:05 by JO Account Number: 09322

Submitted: 10/27/2005 09:10
Reported: 11/11/2005 at 10:24
Discard: 12/12/2005

M192T SDG#: LEC52-02

M192T	SDG#: LEC52-02				*	
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 19:17	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	11/01/2005 18:30	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 10:39	Venia B McFadden	i
00228	Sulfate	EPA 300.0	1	11/04/2005 20:59	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 20:56	Robert I Pusch	1
08238	BTEX (EPA 602)	EPA 602	1	11/01/2005 02:59	Steven A Skiles	1
00553	Base Neutrals	EPA 625	1	11/03/2005 22:07	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	10/28/2005 16:15	Kerrie A Greenfield	1
08263	Total Phos as P Prep (water)	EPA 365.1	1	10/28/2005 15:00	Nancy J Shoop	i



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Lancaster Laboratories Sample No. WW 4633489

MW-19-1 Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 16:35

by JO

Account Number: 09322

Submitted: 10/27/2005 09:10

Reported: 11/11/2005 at 10:24 Discard: 12/12/2005

RMT, Inc. PO Box 8923

Madison WI 53708-8923

191WC SDG#: LEC52-03

		•		As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00307	Heterotrophic Plate Count	n.a.	240.	1.	cfu/ml	n.a.
	The sample was plated by Kim S	mall on 10-27-0	05 by 1050.			
00206	Total Suspended Solids	n.a.	12.4	3.0	mg/1	1
00212	Total Dissolved Solids	n.a.	659.	19.4	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	4.6	0.080	mg/l	2
00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/l	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	1
00228	Sulfate	14808-79-8	44.2	1.5	mg/l	5
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	N.D.	2.0	ug/l	1
07107	Ethane	74-84-0	N.D.	1.0	ug/l	1
07108	Ethene	74-85-1	N.D.	1.0	ug/l	1
07109	Propane	74-98-6	Ń.D.	1.0	ug/l	i
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	. 1 1
00553	Base Neutrals	·				
00669	bis(2-Ethylhexyl)phthalate	117-81-7	2. J	1.	ug/l	1

State of New Jersey Lab Certification No. PA011

CAT	Laboratory Chronicle						
No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor	
00307	Heterotrophic Plate Count	Std Meth 9215B 19th 1995	ed 1	10/29/2005 12:43	Kimberly A Small	n.a.	
00206 00212	Total Suspended Solids	EPA 160.2	1	10/31/2005 10:59	Anne L Kuenzli	1	
00212	Total Dissolved Solids Nitrite Nitrogen	EPA 160.1 EPA 353.2	1	10/31/2005 15:14 10/27/2005 17:08	Anne L Kuenzli Kristina E Kleintop	1	



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Lancaster Laboratories Sample No. WW 4633489

MW-19-1 Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 16:35 Account Number: 09322

Submitted: 10/27/2005 09:10 RMT, Inc. PO Box 8923

Reported: 11/11/2005 at 10:24 Discard: 12/12/2005 Madison WI 53708-8923

191WC	SDG#: LEC52-03				•	
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 19:42	Kristina E Kleintop	2
00221	Ammonia Nitrogen	EPA 350.2	. 1	11/01/2005 18:30	Luz M Groff	
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 10:40	Venia B McFadden	1
00228	Sulfate	EPA 300.0	1	11/04/2005 21:13	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 21:12	Robert I Pusch	1
08238	BTEX (EPA 602)	EPA 602	1	11/01/2005 03:42	Steven A Skiles	1
00553	Base Neutrals	EPA 625	1	11/03/2005 22:55	Brian K Graham	-
08108	625 Water Extraction	EPA 625	1	10/28/2005 16:15	Kerrie A Greenfield	•
08263	Total Phos as P Prep	EPA 365.1	ī	10/28/2005 15:00	Nancy J Shoop	ī



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Lancaster Laboratories Sample No. WW 4633490

SW-D-1 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 17:28

hv TO

Account Number: 09322

Submitted: 10/27/2005 09:10

Reported: 11/11/2005 at 10:24

Discard: 12/12/2005

RMT, Inc. PO Box 8923

Madison WI 53708-8923

SWD1C SDG#: LEC52-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					4
0,5538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/1	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00553	Base Neutrals	,				
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011

Labora	tomr	Channe	i - 1 -

CAT	Dilution
No. Analysis Name Method Trial# Date and Time Analyst	Factor
08238 BTEX (EPA 602) EPA 602 1 11/01/2005 04:24 Steven A Skile	
00553 Base Neutrals EPA 625 1 11/03/2005 23:43 Brian K Graham	
08108 625 Water Extraction EPA 625 1 10/28/2005 16:15 Kerrie A Green	•



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Lancaster Laboratories Sample No. 4633491

SW-D-2 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 17:40

by JO

Account Number: 09322

Submitted: 10/27/2005 09:10 Reported: 11/11/2005 at 10:24

Discard: 12/12/2005

RMT, Inc. PO Box 8923

Madison WI 53708-8923

CAT

SWD2C SDG#: LEC52-05

CAT No. 08238	Analysis Name  BTEX (EPA 602)	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
						•
05538	Total Xylenes	1330-20-7	2.0 ј	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	0.6 J	0.2	ug/1	1
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	i

State of New Jersey Lab Certification No. PA011

	Laborato	ry Chro	nicle		
ı :)	Method EPA 602	Trial#	Analysis Date and Time 11/01/2005 05:07	Analyst Steven A Skiles	Dilution Factor
		-	11/01/2003 03.07	Sceven A Skiles	1

No. Analysis Name 08238 BTEX (EPA -602) 00553 Base Neutrals EPA 625 11/04/2005 00:32 Brian K Graham 08108 625 Water Extraction **EPA 625** 10/28/2005 16:15 Kerrie A Greenfield



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Lancaster Laboratories Sample No. WW 4633492

SW-D-3 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 17:50

by JO

Account Number: 09322

Submitted: 10/27/2005 09:10

RMT, Inc. PO Box 8923

Reported: 11/11/2005 at 10:24 Discard: 12/12/2005

Madison WI 53708-8923

SWD3C SDG#: LEC52-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)	÷		•		•
05538 07029 07030 07031	Total Xylenes Benzene Toluene Ethylbenzene	1330-20-7 71-43-2 108-88-3 100-41-4	1.4 J N.D. N.D. 0.4 J	0.6 0.2 0.2 0.2	ug/l ug/l ug/l ug/l	1 1 1
00553	Base Neutrals	,				
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011

#### Laboratory Chronicle

CAT	Taboratory childhicle							
	San a San and I all 180 a	Analysis						
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor		
08238	BTEX (EPA 602)	EPA 602	1	11/01/2005 05:49	Steven A Skiles	1		
00553	Base Neutrals	EPA 625	1	11/04/2005 01:20				
08108	625 Water Extraction	EPA 625			Brian K Graham	1		
		51H 025	1	10/28/2005 16:15	Kerrie A Greenfield	1		



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Lancaster Laboratories Sample No. WW 4633493

ATM-01 Blank Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 11:00

by JO

Account Number: 09322

Submitted: 10/27/2005 09:10 Reported: 11/11/2005 at 10:25

RMT, Inc. PO Box 8923

Madison WI 53708-8923

Discard: 12/12/2005

LETM1 SDG#: LEC52-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection	Units	Dilution Factor
00307	Heterotrophic Plate Count	n.a.	5.	Limit	cfu/ml	n.a.
	This result is an estimated couthe result is outside the estal colony forming units (cfu) per	olished counting	one plate used t g range of 30 to	co calculate	024,	
	The sample was plated by Kim Sm	mall on 10-27-0	5 by 1045.			
00206	Total Suspended Solids	n.a.	N.D.	3.0	mq/l	1
00212	Total Dissolved Solids	n.a.	10.0 Ј	9.7	mg/1	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/1	1 .
00220	Nitrate Nitrogen	14797-55-8	N.D.	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/1	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/1	1
00228	Sulfate	14808-79-8	0.30 Ј	0.30	mg/1	1
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	N.D.	2.0	ug/l	1
07107	Ethane	74-84-0	N.D.	1.0	ug/l	1
07108	Ethene	74-85-1	N.D.	1.0	ug/l	1
07109	Propane	74-98-6	N.D.	1.0	ug/l	1
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	uq/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011

Labo	ratory	Chron	1010
LICIO	11 41 (373)	Chron	1712

CAT No.

Analysis Name

Method

Analysis Trial# Date and Time

Analyst

Dilution **Factor** 



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Lancaster Laboratories Sample No. WW 4633493

ATM-01 Blank Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 11:00

by JO

Account Number: 09322

Submitted: 10/27/2005 09:10 Reported: 11/11/2005 at 10:25

RMT, Inc. PO Box 8923

Madison WI 53708-8923

Discard: 12/12/2005

LETM1	SDG#: LEC52-07	•				
00307	Heterotrophic Plate Count	Std Meth 9215B 19th ed 1995	1	10/29/2005 12:43	Kimberly A Small	n.a.
00206	Total Suspended Solids	EPA 160.2	1	10/31/2005 10:59	Anne L Kuenzli	7
00212	Total Dissolved Solids	EPA 160.1	1	10/31/2005 15:14	Anne L Kuenzli	1
00219	Nitrite Nitrogen	EPA 353.2	1	10/27/2005 17:09	Kristina E Kleinton	1
00220	Nitrate Nitrogen	EPA 353,2	1	11/09/2005 19:19	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	11/01/2005 18:30	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 10:43	Venia B McFadden	1
00228	Sulfate	EPA 300.0	1	11/04/2005 21:27	Shannon L Phillips	•
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 21:28	Robert I Pusch	1
08238	BTEX (EPA 602)	EPA 602	1	11/01/2005 06:32	Steven A Skiles	
00553	Base Neutrals	EPA 625	1	11/04/2005 02:09	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	10/28/2005 16:15	Kerrie A Greenfield	1
08263	Total Phos as P Prep (water)	EPA 365.1	1	10/28/2005 15:00	Nancy J Shoop	1



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Lancaster Laboratories Sample No. WW 4633494

DUP-01 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005

Account Number: 09322

Submitted: 10/27/2005 09:10 Reported: 11/11/2005 at 10:25

PO Box 8923

RMT, Inc.

Discard: 12/12/2005

Madison WI 53708-8923

DUINC SDG#: LEC52-08FD

		•		As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	<b>Factor</b>
00307	Heterotrophic Plate Count	n.a.	92.	1.	cfu/ml	n.a.
	The sample was plated by Kim Sm	mall on 10-27-0	)5 by 1045.			
00206	Total Suspended Solids	n.a.	N.D.	3.0	mg/l	1
00212	Total Dissolved Solids	n.a.	908.	38.8	mg/1	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mq/l	1
00220	Nitrate Nitrogen	14797-55-8	0.60	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/l	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	1
00228	Sulfate	14808-79-8	62.1	1.5	mg/l	5
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	49.	2.0	ug/l	1
07107	Ethane	74-84-0	N.D.	1.0	ug/1	1
07108	Ethene	74-85-1	N.D.	1.0	ug/l	1
07109	Propane	74-98-6	N.D.	1.0	ug/l	1
08238	BTEX (EPA 602)					
~ 05538	Total Xylenes	1330-20-7	3.0	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	2.5	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	0.8 J	0.2	ug/l	1
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011

CAT	Laboratory Chronicle							
No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor		
00307	Heterotrophic Plate Count	Std Meth 9215B 19t	hed 1	10/29/2005 12:43	Kimberly A Small	n.a.		
00206 00212	Total Suspended Solids Total Dissolved Solids	EPA 160.2 EPA 160.1	. 1	10/31/2005 10:59	Anne L Kuenzli	1		
00219	Nitrite Nitrogen	EPA 353.2	1	10/31/2005 15:14 10/27/2005 17:11	Anne L Kuenzli Kristina E Kleintop	1 1		



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Lancaster Laboratories Sample No. WW 4633494

DUP-01 Grab Water Sample L.E. Carpenter, NJ

Collected:10/26/2005 by JO Account Number: 09322

Submitted: 10/27/2005 09:10 RMT, Inc. Reported: 11/11/2005 at 10:25 PO Box 8923

Discard: 12/12/2005 Madison WI 53708-8923

DUINC	SDG#: LEC52-08FD	•				
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 19:21	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	11/01/2005 18:30	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 10:47	Venia B McFadden	1
00228	Sulfate	EPA 300.0	1	11/04/2005 21:40	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 21:45	Robert I Pusch	1
08238	BTEX (EPA 602)	EPA 602	1	11/01/2005 07:14	Steven A Skiles	1
00553	Base Neutrals	EPA 625	1	11/04/2005 02:58	Brian K Graham	ī
08108	625 Water Extraction	EPA 625	1	10/28/2005 16:15	Kerrie A Greenfield	1
08263	Total Phos as P Prep (water)	EPA 365.1	1 \	10/28/2005 16:45	Nancy J Shoop	ī



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Lancaster Laboratories Sample No. WW 4633495

Trip Blank Water Sample L.E. Carpenter, NJ

Collected: n.a.

Submitted: 10/27/2005 09:10

Reported: 11/11/2005 at 10:25 Discard: 12/12/2005

Account Number: 09322

RMT, Inc.

PO Box 8923

Madison WI 53708-8923

LECAR SDG#: LEC52-09TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538 07029	Total Xylenes Benzene	1330-20-7	N.D.	0.6	ug/l	1
07029	Toluene	71-43-2	N.D.	0.2	ug/l	1
07031	Ethylbenzene	108-88-3	N.D.	0.2	ug/l	1
0,031	pentipensene	100-41-4	N.D.	0.2	ug/l	. 1

State of New Jersey Lab Certification No. PA011

Laboratory Chronicle

-i			-uzorucory chirohicic					
CAT				Analysis		Dilution		
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor		
08238	BTEX (EPA 602)	EPA 602	1	10/31/2005 19:11	Steven A Skiles	1		



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#### Quality Control Summary

Client Name: RMT, Inc.

Reported: 11/11/05 at 10:25 AM

Group Number: 964888

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

#### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 05300105102A	Sample	number(s):	4633487-46	33489,46	33493-4633	3494		
Nitrite Nitrogen	N.D.	0.015	mg/l	102	•	90-110		
Batch number: 05301109101B	Sample	number(s):	4633487-46	33489,46	33493			
Total Phosphorus as P (water)	N.D.	0.080	mg/l	107		89-110		
Batch number: 05301109102A		number(s):	4633494					
Total Phosphorus as P (water)	N.D.	0.080	mg/l	103		89-110		,
Batch number: 05301WAB625	Sample	number(s):	4633487-46	33494				
bis(2-Ethylhexyl)phthalate	N.D.	1.	ug/l	93		68-111		
Batch number: 05304020601B	Sample	number(s):	4633487-46	33489,46	33493-4633	3494		
Total Suspended Solids	N.D.	3.0	mg/l	83		56-128		
Batch number: 05304021202A	Sample	number(s):	4633487-46	33489,46	33493-4633	3494		
Total Dissolved Solids	15.0 J	9.7	mg/l	105		80-120		
Batch number: 05304A15A	Sample	number(s):						
Total Xylenes	N.D.	0.6	ug/l		104	82-120	6	30
Benzene	N.D.	0.2	ug/l	97	103	86-119	6	30
Toluene	N.D.	0.2	ug/l	98	104		6	30
Ethylbenzene	N.D.	0.2	ug/l	99	105	81-119	6	30
Batch number: 05305022101A	Sample	number(s):	4633487-46	33489,46	33493-4633	1494		
Ammonia Nitrogen	N.D.	0.11	mg/l	98	97	91-100	1	1
Batch number: 053080019A	Sample	number(s):	4633487-46	33489,46	33493-4633	494		
Methane	N.D.	2.0	ug/l	103		80-120		
Ethane	N.D.	1.0	ug/l	103		80-120		
Ethene	N.D.		ug/1	108		80-120		
Propane	N.D.	1.0	ug/l	103		73-125		
Batch number: 05308401301B	Sample	number(s):	4633487-46	33489,463	33493-4633	494		
Sulfate	0.36 J	0.30	mg/l	105		90-110		
Batch number: 05313106101A	Sample	number(s):	4633487-46	33489.46	33493-4673	494		
Nitrate Nitrogen	N.D.	0.040	mg/1	99		89-110		

#### Sample Matrix Quality Control

MS	msd	MS/MSD	RPD	BKG	DUP	DOB	Dup RPD
					201	202	Dub Ken

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The background result was more than four times the spike added.



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#### Quality Control Summary

Client Name: RMT, Inc. Reported: 11/11/05 at 10:	25 AM		Gr	oup N	umber:	964888			
Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Маж
Batch number: 05300105102A Nitrite Nitrogen	Sample 111*	number	(s): 463348 90-110	7-46334	189,4633	493-4633494 N.D.	N.D.	11 (1)	20
Batch number: 05301109101B Total Phosphorus as P (water)	Şample 106	number	(s): 463348 90-110	7-46334	189,4633	<b>493</b> 0.51	0.49	4* (1)	3
Batch number: 05301109102A Total Phosphorus as P (water)	Sample 113*	number	(s): 463349 90-110	4		N.D.	N.D.	0 (1)	3
Batch number: 05301WAB625 bis(2-Ethylhexyl)phthalate	Sample 92	number 92	(s): 463348 69-111	7-46334 0	194 30				
Batch number: 05304020601B Total Suspended Solids	Sample	number	(s): 463348	7-46334	189,4633	493-4633494 78.0	76.0	3 (1)	20
Batch number: 05304021202A Total Dissolved Solids	Sample 93	number 107	(s): 463348 60-140	7-46334 5	189,4633 5	493-4633494 1,730.	1,750.	1	5
Batch number: 05304A15A Total Xylenes Benzene Toluene Ethylbenzene	Sample 107 104 109 108	number	(s): 463348 80-134 78-131 78-129 75-133	7-46334	195				
Batch number: 05305022101A Ammonia Nitrogen	Sample	number	(s): 463348	7-46334	89,4633	493-4633494 32.8	33.0	1	2
Batch number: 053080019A Methane Ethane Ethene Propane	Sample 105 102 108 105	number 100 105 113 106	(s): 463348 63-124 63-127 69-126 56-136	7-46334 4 3 4 1	20 20 20 20 20 20 20	493-4633494			
Batch number: 05308401301B Sulfate	Sample 106	number	(s): 463348 90-110	7-46334	89,4633	493-4633494 62.1	62.8	1	3
Batch number: 05313106101A Nitrate Nitrogen	Sample 92	number	(s): 463348 90-110	7-46334	89,4633	493-4633494 1.4	1.4	1	2

#### Surrogate Quality Control

Analys	is	Name:	Base	Neutrals
Batch	num	ber:	05301	WAB625

	Nitropenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	
4633487	78	84	79	
4633488	84	84	84	
4633489	81	* 86	87	
4633490	85	88	67	
4633491	84	88	68	
4633492	85	85	66	
4633493	85	90	88	
4633494	81	88	81	
Blank	84	86	85	

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



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#### Quality Control Summary

Reported: 11/11/05 at 10:25 AM			Gr 1	Group Number: 964888			
MSD	86 86 84	10.23	Surrogate 89 92 86	95 83 75	Control		
imits:	48-117	·	62-111	45-132			
malysis N	ame: BTEX (EPA 6	(02)	,				
atch numb	er: 05304A15A						
	Trifluorotolue	ene-P					
633487	101	· · · · · · · · · · · · · · · · · · ·					
633488	101						
633489	100						
633490	101						
633491	100						
633492	100						
633493	101						
633494	94						
633495	100						
Blank	101						
LCS	98 .						
CSD	98						
1S	98						
imits:	69-129		· · · · · · · · · · · · · · · · · · ·	·	· · · · · · · · · · · · · · · · · · ·		
Analysis N Batch numb	ame: Volatile He er: 053080019A Propene	adspace Hyd	rocarbon				
633487	105	<del> </del>					
633488	94						
633489	104						
1633493.	108						
	100						
633494	113						
Blank							
Blank .CS	108						
1633494 Blank LCS IS ISD							

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

# Analysis Request, Invironmental Services Chain of Cu.ody



For Lancaster Laboratories use only

Acct. # 93 22 Group# 964875 Sample # 4633487-95 COC # 0104422

	Plea	se print. Instruc	lions on r	everse sid	le corre	spond w	ith circled	number	<b>5</b> .				•		
Client: RMT, Inc.	Acct. #;				4)		<b>(5)</b>		Zan i požal Posta				For Lab	Use O	nly
Project Name#: LE Carpenter 6	527.10 PWSID#							7	7 7	//	/ /	15/1	FSC: SCR#:	2/2	<del>5</del> 4
Project Manager: Nick Clevett								/ /		//		/×/ /			6
Sampler: JO/ EV	•						/x/		//	///	16/	57/			
Name of state where samples were collected:	M					/	1/2	//	/	/ /	\S/\ 3/\	4 / "			
2							m/5%	W/n	7/V/			/ /			
						15	18/3	\$\\$\ \$\\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	6/0		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	/_ `	•		
MW-19-11	10/26/05	1045			14	<del>-</del>		$\Box$	1		7.	Remarks		*	
MW-19-2	/ /05	1405	<del>`</del>	17	14	X X						4		_	
MW-19-1	/	1635		+{+	14	<b>₹</b> ±		┼┼				·		-	
SW-D-1	-	1728	++	+	15		=		x T	<b>\</b>	+		<del></del>		
SW-D-Z		740	╅┪	+++	5			<del>/ / </del>	<u></u>	<del> </del>	+	<u> </u>			
SW-D-3		1750	++	111	5			7		X					
A4m-01		1100	1-1-	+-++	M	<del>-</del>		7		X				·	
Dup-01			<del>/    </del>	1	17	1									<del></del>
trip blank			╅╅	1	177	1			,		-				<del></del>
- The Stank			+	+^+	- '-			-	<u> </u>		+		<del></del>		
Turnaround Time Requested (TAT) (please cir	cle): Normal	Rush	Reling	uished by	<u></u>		<del>-                                    </del>	Date	Time	Danahu				Dete	(a
(Rush TAT is subject to Lancaster Laboratories approx Date results are needed:	val and surcharge	B.)	Тонгц	uisi isu uj		V/.	1	24-2	135	necety.	y ve	moorde	_  i	Date V15	Time (9
Rush results requested by (please circle): Pho	ne Fay	E-mail	Reling	uished by	/;	,		Date	Time	Receive					7
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1 ages i mounta changes dige is tedrited)	l l	Complete?	<b></b>		<u>.                                    </u>		1								
QC Summary Type VI (Raw Data)  Type I (Tier I) GLP Site-specific QC n	Yes		Relinq	uished by				Date	Time	Receive	ed by:		ľ	Date	Time
Type II (Tier II) Other (If yes, indicate QC san	reple and submit trip	ivate volume.)				<u> </u>			<u> </u>				$\searrow \downarrow$		
Type III (NJ Red. Del.) Internal Chain of ( Type IV (CLP)	Custody require	d? Yes No	Kelindi	uished by	<b>/:</b>			Date	Time	Reseive	_	)	106	Date 65-	Time.
TANG IA (CES)	<del></del>		L							LOX	10 1	ROK_	1951	و دن	710

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 658-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

2102 Rev. 10/27/02



# **Explanation of Symbols and Abbreviations**

Inorganic Qualifiers

The following defines common symbols and abbreviations used in reporting technical data:

N.D. TNTC	none detected Too Numerous To Count	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
ĬÜ	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
mĺ	milliliter(s)	Ī	liter(s)
m3	cubic meter(s)	· ul	microliter(s)

- less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

#### Organic Qualifiers

	•		morganio Quannois
A	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	М	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	ับ	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	W	Post digestion spike out of control limits
U X,Y,Z	Compound was not detected Defined in case narrative	+ .	Duplicate analysis not within control limits Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions of Lancaster Laboratories and we hereby object to any conflicting terms contained in any acceptance or order submitted by client.



#### ANALYTICAL RESULTS

Prepared for:

RMT, Inc. PO Box 8923 Madison WI 53708-8923

608-831-4444

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

#### SAMPLE GROUP

The sample group for this submittal is 965024. Samples arrived at the laboratory on Thursday, October 27, 2005. The PO# for this group is 6527.10.

Client Description	Lancaster Labs Number
MW-19-6 Grab Water Sample	4634150
MW-19-8 Unspiked Grab Water Sample	4634151
MW-19-8_Matrix_Spike Grab Water Sample	4634152
MW-19-8_Matrix_Spike_Duplicate Grab Water Sample	4634153
MW-19-8_Duplicate Grab Water Sample	4634154
Trip Blank Water Sample	4634155

#### **METHODOLOGY**

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

RMT, Inc.

1 COPY TO

Data Package Group

Attn: Nicholas J. Clevett





Questions? Contact your Client Services Representative Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,





Lancaster Laboratories Sample No. WW 4634150

MW-19-6 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 08:10

by JO

Account Number: 09322

Submitted: 10/27/2005 13:35

Reported: 11/11/2005 at 10:26

SDG#: LEC52-10

. 11/11/2003 at 10.2

RMT, Inc. PO Box 8923

Madison WI 53708-8923

Discard: 12/12/2005

MW196

CAT No .	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00307	Heterotrophic Plate Count	n.a.	43.	1.	cfu/ml	n.a.
	The sample was plated by Keith	Hoover on 10-2	27-05 at 1615.			
00206	Total Suspended Solids	n.a.	10.8 J	3.0 -	mg/l	1
00212	Total Dissolved Solids	n.a.	940.	38.8	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	3.5	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/l	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	i
00228	Sulfate	14808-79-8	47.8	1.5	mg/l	5
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	43.	2.0	ug/1	1
07107	Ethane	74-84-0	N.D.	1.0	ug/l	1
07108	Ethene	74-85-1	N.D.	1.0	ug/l	1
07109	Propane	74-98-6	N.D.	1.0	ug/l	1
0.8238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	25.	0.6	ug/l	,
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	110.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	5.4	0.2	ug/l	1
	_			V.2	ug/ I	1
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	ug/l	1

State of New Jersey Lab Certification No. PA011

Laboratory Chronicle

CAT No.

Analysis Name

Method

Analysis rial# Date and Time

Analyst

Dilution Factor





Lancaster Laboratories Sample No. WW 4634150

MW-19-6 Grab Water Sample L.E. Carpenter, NJ

(water)

Collected: 10/27/2005 08:10 by JO Account Number: 09322

Submitted: 10/27/2005 13:35 RMT, Inc. Reported: 11/11/2005 at 10:26 PO Box 8923

Discard: 12/12/2005 Madison WI 53708-8923

MW196	SDG#: LEC52-10					
00307	Heterotrophic Plate Count	Std Meth 9215B 19th ed 1995	1	10/29/2005 16:15	Keith A Hoover	n.a.
00206	Total Suspended Solids	EPA 160.2	1 .	11/01/2005 09:33	Yolunder Y Bunch	1
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00219	Nitrite Nitrogen	EPA 353.2	1	10/27/2005 20:17	Kristina E Kleintop	7
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 19:27	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	10/31/2005 16:00	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 10:49	Venia B McFadden	i
00228	Sulfate	EPA 300.0	1	11/07/2005 14:56	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 22:17	Robert I Pusch	1
08238	BTEX (EPA 602)	EPA 602	1	11/01/2005 10:03	Steven A Skiles	1
00553	Base Neutrals	EPA 625	1	11/04/2005 03:46	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	10/28/2005 16:15	Kerrie A Greenfield	7
08263	Total Phos as P Prep	EPA 365.1	1	10/28/2005 16:45	Nancy J Shoop	1



Page I of 2

Lancaster Laboratories Sample No. 4634151

MW-19-8 Unspiked Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 09:55

by JO

Account Number: 09322

Submitted: 10/27/2005 13:35 Reported: 11/11/2005 at 10:26

RMT, Inc. PO Box 8923

Madison WI 53708-8923

Discard: 12/12/2005

MW198 SDG#: LEC52-11BKG

					As Received		
	CAT	•		As Received	Method		Dilution
	No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
	00307	Heterotrophic Plate Count	n.a.	210.	1.	cfu/ml	n.a.
		The sample was plated by Keith	Hoover on 10-2	27-05 at 1615.			
	00206	Total Suspended Solids	n.a.	4.4 J	3.0	mg/l	. 1
	00212	Total Dissolved Solids	n.a.	926.	38.8	mg/l	1
	00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1
	00220	Nitrate Nitrogen	14797-55-8	0.88	0.040	mg/1	1
١	00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/l	1
,	00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	1
	00228	Sulfate	14808-79-8	24.6	1.5	mg/l	5
	07105	Volatile Headspace Hydrocarbon					
	07106	Methane	74-82-8	24.	2.0	ug/l	1
	07107	Ethane	74-84-0	N.D.	1.0	ug/l	1
	07108	Ethene	74-85-1	N.D.	1.0	ug/l	1
	07109	Propane	74-98-6	N.D.	1.0	ug/l	1
	08238	BTEX (EPA 602)					
	05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
	07029	Benzene	71-43-2	N.D.	0.2	ug/l	i
	07030	Toluene	108-88-3	N.D.	0.2	ug/1 ug/1	1
	07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
	00553	Base Neutrals		×			
	00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011

Laboratory Chronicle

CAT

Analysis Name

Method

Analysis Date and Time

Analyst

Dilution Factor





Lancaster Laboratories Sample No. WW 4634151

MW-19-8 Unspiked Grab Water Sample L.E. Carpenter, NJ

Collected: 10/27/2005 09:55 by JO Account Number: 09322

Submitted: 10/27/2005 13:35 RMT, Inc. Reported: 11/11/2005 at 10:26 PO Box 8923

Discard: 12/12/2005 Madison WI 53708-8923

MW198	SDG#: LEC52-11BKG		-	·		
00307	Heterotrophic Plate Count	Std Meth 9215B 19th ed 1995	1	10/29/2005 16:15	Keith A Hoover	n.a.
00206	Total Suspended Solids	EPA 160.2	1	11/01/2005 09:33	Yolunder Y Bunch	1
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00219	Nitrite Nitrogen	EPA 353.2	1	10/27/2005 20:22	Kristina E Kleintop	1
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 19:28	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	10/31/2005 16:00	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 10:50	Venia B McFadden	1
00228	Sulfate	EPA 300.0	1	11/07/2005 15:10	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 22:33	Robert I Pusch	. 1
08238	BTEX (EPA 602)	EPA 602	1	11/02/2005 03:24	Kathie J Bowman	7
00553	Base Neutrals	EPA 625	1	11/03/2005 18:53	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	10/28/2005 16:15	Kerrie A Greenfield	1
08263	Total Phos as P Prep (water)	EPA 365.1	1	10/28/2005 16:45	Nancy J Shoop	1



Lancaster Laboratories Sample No. WW 4634152

MW-19-8 Matrix Spike Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 09:55

by JO

Account Number: 09322

Submitted: 10/27/2005 13:35

Reported: 11/11/2005 at 10:26

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

MW198 SDG#: LEC52-11MS

CAT			As Received	As Received Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00219	Nitrite Nitrogen	14797-65-0	0.21	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	1.7	0.040	mg/l	1
07105	Volatile Headspace Hydrocarbon			·		
07106	Methane	74-82-8	87.	2.0	ug/l	1
07107	Ethane	74-84-0	61.	1.0	ug/l	1
07108	Ethene	74-85-1	67.	1.0	ug/l	1
07109	Propane	74-98-6	69.	1.0	ug/l	1
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	65.	0.6	ug/l	1
07029	Benzene	71-43-2	21.	0.2	ug/l	
07030	Toluene	108-88-3	22.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	22.	0.2	ug/l	1 .
00553	Base Neutrals			•		
00669	bis(2-Ethylhexyl)phthalate	117-81-7	96.	1.	ug/l	1

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Lanc	ratio.	$\Gamma \wedge C \Pi$	LOH	cie

		-mora dory our our ere						
CAT		Analysis						
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Dilution Factor		
00219	Nitrite Nitrogen	EPA 353.2	1	10/27/2005 20:24	Kristina E Kleintop	1		
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 19:33	Kristina E Kleintop	1		
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 23:05	Robert I Pusch	1		
08238 00553	BTEX (EPA 602) Base Neutrals	EPA 602 EPA 625	1	11/02/2005 04:06	Kathie J Bowman	1		
08108	625 Water Extraction	EPA 625	1	11/03/2005 19:41 10/28/2005 16:15	Brian K Graham Kerrie A Greenfield	1		
			_	10/20/2003 16:15	Reffle A Greenfield	1		





Lancaster Laboratories Sample No. 4634153

MW-19-8\_Matrix\_Spike\_Duplicate Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 09:55 by JO

Account Number: 09322

Submitted: 10/27/2005 13:35

RMT, Inc. PO Box 8923

Reported: 11/11/2005 at 10:26

Discard: 12/12/2005

Madison WI 53708-8923

MW198 SDG#: LEC52-11MSD

CAT			As Received	As Received Method		Dilution
Ño.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	84.	2.0	ug/l	1
07107	Ethane	74-84-0	63.	1.0	ug/l	1
07108	Ethene	74-85-1	70.	1.0	ug/l	1
07109	Propane	74-98-6	70.	1.0	ug/l	1
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	64.	0.6	üg/l	1
07029	Benzene	71-43-2	21.	0.2	ug/1	1
07030	Toluene	108-88-3	21.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	21.	0.2	ug/l	1
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	96.	1.	ug/l	1

	Laboratory Chronicle							
CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor		
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 23:22	Robert I Pusch	1		
08238	BTEX (EPA 602)	EPA 602	1	11/02/2005 04:49	Kathie J Bowman	1		
00553	Base Neutrals	EPA 625	1	11/03/2005 20:30	Brian K Graham	1		
08108	625 Water Extraction	EPA 625	1	10/28/2005 16:15	Kerrie A Greenfield	1		



Lancaster Laboratories Sample No. WW 4634154

MW-19-8\_Duplicate Grab Water Sample L.E. Carpenter, NJ

Collected: 10/27/2005 09:55

by JO

Account Number: 09322

Submitted: 10/27/2005 13:35

Reported: 11/11/2005 at 10:26

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

MW198 SDG#: LEC52-11DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1 1
00220	Nitrate Nitrogen	14797-55-8	0.85	0.040	mg/l	

Laboratory	Chronicle

CAT	,		-	Analysis		Dilution
No. 00219 00220	<b>Analysis Name</b> Nitrite Nitrogen Nitrate Nitrogen	<b>Method</b> EPA 353.2 EPA 353.2	Trial# 1 1	Date and Time	Analyst Kristina E Kleintop Kristina E Kleintop	Factor 1



Lancaster Laboratories Sample No. 4634155

Trip Blank Water Sample L.E. Carpenter, NJ

Collected: n.a.

Account Number: 09322

Submitted: 10/27/2005 13:35 Reported: 11/11/2005 at 10:27

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

LCATB SDG#: LEC52-12TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)				,	
05538 07029 07030 07031	Total Xylenes Benzene Toluene Ethylbenzene	1330-20-7 71-43-2 108-88-3 100-41-4	N.D. N.D. N.D.	0.6 0.2 0.2 0.2	ug/l ug/l ug/l ug/l	1 1 1 1

	Laboratory Chronicle								
CAT	3		Analysis						
<b>No.</b> 08238	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor			
00238	BTEX (EPA 602)	EPA 602	1	11/02/2005 01:59	Kathie J Bowman	1			



# Quality Control Summary

Client Name: RMT, Inc.

Group Number: 965024

Reported: 11/11/05 at 10:27 AM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

# Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 05300105103A	Sample	number(s):	4634150					•
Nitrite Nitrogen	N.D.	0.015	mg/l	110		90-110		
Batch number: 05300105103B	Sample	number(s):	4634151-46	34152.46	34154			
Nitrite Nitrogen	N.D.	0.015	mg/l	110		90-110		
Batch number: 05301109102A	Sample	number(s):	4634150-46	34151				
Total Phosphorus as P (water)	N.D.	0.080	mg/l	103		89-110		
Batch number: 05301WAB625	Sample	number(s):	4634150-46	34153				
bis(2-Ethylhexyl)phthalate	N.D.	1.	ug/l	93		68-111		
Batch number: 05304022101A		number(s):	4634150-46	34151				
Ammonia Nitrogen	N.D.	0.11	mg/l	98	97	91-100	1	1
Batch number: 05304A15B		number(s):	4634150					
Total Xylenes	N.D.	0.6	ug/l	98	104	82-120	6	30
Benzene	N.D.	0.2	ug/l	97	103	86-119	6	30
Toluene	N.D.	0.2	ug/l	98	104	82-119	6	30
Ethylbenzene	N.D.	0.2	ug/l	99	105	81-119	<u>,</u> 6	30
Batch number: 05305020601A	Sample	number(s):	4634150-46	34151				
Total Suspended Solids	N.D.	3.0	mg/l	99		56-128		
Batch number: 05305021201A		number(s):	4634150-46	34151				
Total Dissolved Solids	N.D.	9.7	mg/l	106		80-120		
Batch number: 05305A15A	Sample	number(s):	4634151-46	34153,463	34155			
Total Xylenes	Ņ.D.	06	ug/l	105	102	82-120	3	30
Benzene	N.D.	0.2	ug/l	103	100	86-119	3	30
Toluene	N.D.	0.2	ug/l	105	101	82-119	3	30
Ethylbenzene	N.D.	0.2	ug/l	105	103	81-119	3	30
Batch number: 053080019A		number(s):	4634150-463	34153				
Methane	N.D.	2.0	ug/l	103		80-120		
Ethane	N.D.	1.0	ug/l	103		80-120		
Ethene	N.D.	1.0	ug/l	108		80-120		

<sup>\*-</sup> Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.





# Quality Control Summary

Client Name: RMT, Inc.

Group Number: 965024

Reported: 11/11/05 at 10:27 AM

# Laboratory Compliance Quality Control

Analysis Name Propane	Blank Result N.D.	Blank MDL 1.0	Report Units ug/l	LCS %REC 103	LCSD %REC	LCS/LCSD Limits 73-125	RPD	RPD Max
Batch number: 05311401301A Sulfate	Sample n	number(s): 0.30	4634150-46 mg/l	53 <b>4</b> 151 97		90-110		
Batch number: 05313106101B Nitrate Nitrogen	Sample n	umber(s): 0.040	4634150-46 mg/l	34152,46 99	34154	89-110		

# Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 05300105103A Nitrite Nitrogen	Sample 117*	number	(s): 463415 90-110	0		N.D.	N.D.	6 (1)	20
Batch number: 05300105103B Nitrite Nitrogen	Sample 103	number	(s): 463415 90-110	1-46341	52,4634	1154 N.D.	N.D.	0 (1)	20
Batch number: 05301109102A Total Phosphorus as P (water)	Sample 113*	number	(s): 463415 90-110	0-46341	51	N.D.	N.D.	0 (1)	3
Batch number: 05301WAB625 bis(2-Ethylhexyl)phthalate	Sample	number 92	(s): 4634150 69-111	0-46341 0	53 30				
Batch number: 05304022101A Ammonia Nitrogen	Sample	number	(s): 463415	0-46341	51	11.3	11.3	0	2
Batch number: 05304A15B Total Xylenes Benzene Toluene Ethylbenzene	Sample 107 104 109 108	number(	(s): 4634150 80-134 78-131 78-129 75-133	)	·				
Batch number: 05305020601A Total Suspended Solids	Sample	number(	s): 4634150	-46341	51	174.	178.	2 (1)	20
Batch number: 05305021201A Total Dissolved Solids	Sample 97	number( 97	s): 4634150 60-140	0-463415 0	51 5	940.	922.	2	5
Batch number: 05305A15A Total Xylenes Benzene Toluene Ethylbenzene	Sample 108 105 108 109	number( 107 105 107	s): 4634151 80-134 78-131 78-129 75-133	-463415 2 1 2 2	30 30 30 30 30 30	155			

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Lancaster Laboratories, Inc. 2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 717-656-2300 Fax: 717-656-2681



Page 3 of 4

## Quality Control Summary

Client Name: RMT, Inc.

Group Number: 965024

Reported: 11/11/05 at 10:27 AM

#### Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 053080019A	Sample	number	(s): 46341	50-46343	153				
Methane	105	100	63-124	4	20				
Ethane	102	105	63-127	3	20				
Ethene	108	113	69-126	4	20				
Propane	105	106	56-136	1	20				
Batch number: 05311401301A	Sample	number	(s): 46341	50-46341	.51				
Sulfate	98		90-110			24.6	23.7	4* (1)	3
Batch number: 05313106101B	Sample	number	(s): 46341	50-46341	52.463	4154			
Nitrate Nitrogen	100		90-110		. ,	0.88	0.85	.4*	2

#### Surrogate Quality Control

Analysis Name: Base Neutrals Batch number: 05301WAB625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	
4634150	83	84	79	
4634151	85	87	74	
4634152	86	92	83	
4634153	84	86	75	
Blank	84	86	85	
LCS	86	89	95	
MS	86	92	83	
MSD	84	86	75	ſ
Limits:	48-117	62-111	45-132	

Analysis Name: BTEX (EPA 602) Batch number: 05304A15B

Trifluorotoluene-P

4634150	95
Blank	100
LCS	98
LCSD	98
MS	98

Limits: 69-129

Analysis Name: BTEX (EPA 602) Batch number: 05305A15A

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Lancaster Laboratories, Inc. 2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 717-656-2300 Fax: 717-656-2681



Page 4 of 4

# Quality Control Summary

Client Name: RMT, Inc.

Reported: 11/11/05 at 10:27 AM

Group Number: 965024

		2112204240	7777   7 422   [	
	Trifluorotoluene-P	Surrogate	Quality Control	
4634151	100			
4634152	99	•		
4634153	1.00			
4634155	100			
Blank	100			
LCS	98			
LCSD	98	-		
MS	99			
MSD	100		•	
Limits:	69-129			
Analysis 1	Name: Volatile Headspace Hyd ber: 053080019A	drocarbon		
Analysis 1	Name: Volatile Headspace Hyd	drocarbon		
Analysis 1 Batch numl	Name: Volatile Headspace Hyd ber: 053080019A	drocarbon		
Analysis 1 Batch numl	Name: Volatile Headspace Hyd ber: 053080019A Propene	drocarbon		
Analysis 1 Batch numl 4634150 4634151	Name: Volatile Headspace Hydber: 053080019A Propene 96	drocarbon		
Analysis 1	Name: Volatile Headspace Hydber: 053080019A Propene 96 99	drocarbon		
Analysis 1 Batch num 4634150 4634151 4634152 4634153	Name: Volatile Headspace Hydber: 053080019A Propene  96 99 98	drocarbon		
Analysis 1 Batch num 4634150 4634151 4634152	Name: Volatile Headspace Hydber: 053080019A Propene  96 99 98 104	drocarbon		
Analysis 1 Batch num 4634150 4634151 4634152 4634153 Blank	Name: Volatile Headspace Hydoer: 053080019A Propene  96 99 98 104 113	drocarbon		
Analysis 1 Batch num 4634150 4634151 4634152 4634153 Blank LCS	Name: Volatile Headspace Hydoer: 053080019A Propene  96 99 98 104 113 108	drocarbon		

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The background result was more than four times the spike added.



# Analysis Request / Environmental Services Chain of Custody



For Lancaster Laboratories use only

Group#965024 Sample # 4634150-55 COC # 0104419

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	C.	Acct. #	:			4		(5)							For Lab Use	Only
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MW-19-8 M	is/msd	10/27/05	955	X	Y	9	X	X		1	<del>x</del>	\ <u>\</u>	+		-	
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/pe III (NJ Red. Del.) /pe IV (CLP)	Internal Chain of C	·ustody regui	red? Yes No	1	7	•				- V			,,	_ /	///   Date	10.000



#### ANALYTICAL RESULTS

Prepared for:

RMT, Inc. PO Box 8923 Madison WI 53708-8923

608-831-4444

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

#### **SAMPLE GROUP**

The sample group for this submittal is 965112. Samples arrived at the laboratory on Friday, October 28, 2005. The PO# for this group is 6527.10.

Client Description	Lancaster Labs Number
MW-19-7 Grab Water Sample	4634918
MW-19-9D Grab Water Sample	4634919
SW-R-1 Grab Water Sample	4634920
SW-R-2 Grab Water Sample	4634921
MW-19 Grab Water Sample	4634922
MW-19-5 Grab Water Sample	4634923
RB-01 Grab Water Sample	4634924
Trip Blank Water Sample	4634925

#### **METHODOLOGY**

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

RMT, Inc.

1 COPY TO

Data Package Group

Attn: Nicholas J. Clevett





Questions? Contact your Client Services Representative Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,

Ulssa U MCSexmo



#### Lancaster Laboratories Sample No. WW 4634918

MW-19-7 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 11:35

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00

Reported: 11/11/2005 at 10:43

Discard: 12/12/2005

RMT, Inc. PO Box 8923

Madison WI 53708-8923

W197E SDG#: LEC52-13

CAT No.	Apolysia Nova		As Received	As Received Method		Dilution
NO.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00307	Heterotrophic Plate Count	n.a.	16.	1.	cfu/ml	n.a.
	This result is an estimated co	ount. At least	one plate used	to calculate	,	4
	the result is outside the esta colony forming units (cfu) per	dilution.	ng range of 30 t	.0 300		
	The sample was plated by Marla	ina Kohler on :	10-28-05 by 1133			•
00206	Total Suspended Solids	n.a.	32.0	3.0	mg/l	1
00212	Total Dissolved Solids	n.a.	926.	38.8	mg/l	1
00219		14797-65-0	0.040 J	0.015	mg/l	1
	Matrix QC was performed on thi	s sample for the	he nitrite-nitro	gen analysis.	<b>3</b> , -	-
	Please see the attached QC Sum	mary report for	r the parameter	showing a matrix		
	bias.					
00220		14797-55-8	0.16	0.040	mg/l	1
00221		7664-41-7	0.50	0.11	mg/l	1
00227	THE THE PRODUCT GO I (MALCI)	7723-14-0	0.23	0.080	mg/l	1
00228	Sulfate	14808-79-8	8.9	1.5	mg/l	5
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	7,700.	500.	/2	
07107	Ethane	74-84-0	12.	1.0	ug/l	250 1
07108	Ethene	74-85-1	N.D.	1.0	ug/l ug/l	1
07109	Propane	74-98-6	N.D.	1.0	ug/l	1
08238	BTEX (EPA 602)				-	
05538	Total Xylenes	1220 20 7				
07029	Benzene	1330-20-7 71-43-2	3,600.	120.	ug/l	200
07030	Toluene	108-88-3	62. J	40.	ug/l	200
07031	Ethylbenzene	100-41-4	16,000.	40.	ug/l	200
	The reporting limits were raise		710.	40.	ug/l	200
	bring target compounds into the	e calibration r	ange of the syst	necessary to mem.		
00553	Base Neutrals	-		•		
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1
		•			-	



Lancaster Laboratories Sample No. 4634918

MW-19-7 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 11:35

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00

Reported: 11/11/2005 at 10:43

Discard: 12/12/2005

RMT, Inc. PO Box 8923

Madison WI 53708-8923

W197E

SDG#: LEC52-13

As Received

CAT No.

Analysis Name

CAS Number

As Received Result

Method Detection Limit

Units

Dilution **Factor** 

State of New Jersey Lab Certification No. PA011

CAT	•			Analysis		Dilution
No.	Analysis Name	Method	Frial#	-	Analyst	Factor
00307	Heterotrophic Plate Count	Std Meth 9215B 19th ed	1	10/30/2005 12:00	Marlaina E Kohler	n.a.
00206	Total Suspended Solids	EPA 160.2	1	11/01/2005 09:33	Yolunder Y Bunch	1
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00219	Nitrite Nitrogen	EPA 353.2	1 .	10/29/2005 07:46	Kristina E Kleintop	1
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 21:59	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	11/01/2005 18:30	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1 -	11/01/2005 10:54	Venia B McFadden	1
00228	Sulfate	EPA 300.0	1	11/07/2005 18:58	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 23:38	Robert I Pusch	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/08/2005 17:23	Robert I Pusch	250
08238	BTEX (EPA 602)	EPA 602	1	11/02/2005 16:07	Kathie J Bowman	000
00553	Base Neutrals	EPA 625	1	11/04/2005 19:14	Brian K Graham	200
08108	625 Water Extraction	EPA 625	1	10/31/2005 17:15		1
08263	Total Phos as P Prep (water)	EPA 365.1	ī ,	10/28/2005 16:45	Olivia I Santiago Nancy J Shoop	1



Lancaster Laboratories Sample No. WW 4634919

MW-19-9D Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 12:00

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00

Reported: 11/11/2005 at 10:43

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

199DC SDG#: LEC52-14

				As Received		
CAI	·		As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
082	38 BTEX (EPA 602)	, ·				
	•					•
055	38 Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
070	29 Benzene	71-43-2	N.D.	0.2	ug/l	1
070	30 Toluene	108-88-3	N.D.	0.2	ug/l	1
070	31 Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
005	53 Base Neutrals					
006	69 bis(2-Ethylhexyl)phthalate	117-81-7	Ń.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011

CAT				Analysis	•	Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
08238	BTEX (EPA 602)	EPA 602	. 1	11/02/2005 06:56	Kathie J Bowman	1
00553	Base Neutrals	EPA 625	1	11/04/2005 20:02	Brian K Graham	. 1
08108	625 Water Extraction	EPA 625	1	10/31/2005 17:15	Olivia I Santiago	1



Lancaster Laboratories Sample No. WW 4634920

SW-R-1 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 13:50

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00

Reported: 11/11/2005 at 10:43

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

SWR1E SDG#: LEC52-15

CAT No.	Analysis Name		As Received	As Received Method		Dilution
NO.	Analysis name	CAS Number	Result	Detection Limit	Units	Factor
08238	BTEX (EPA 602)			·		
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011

CAT			_	Analysis	-	Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
08238	BTEX (EPA 602)	EPA 602	. 1	11/02/2005 05:31	Kathie J Bowman	1
00553	Base Neutrals	EPA 625	1	11/04/2005 20:51	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	10/31/2005 17:15	Olivia I Santiago	1



Lancaster Laboratories Sample No. WW 4634921

SW-R-2 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 14:00

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00

Reported: 11/11/2005 at 10:43

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

SWR2E SDG#: LEC52-16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538 07029 07030 07031	Total Xylenes Benzene Toluene Ethylbenzene	1330-20-7 71-43-2 108-88-3 100-41-4	N.D. N.D. N.D. N.D.	0.6 0.2 0.2 0.2	ug/l ug/l ug/l ug/l	1 1 1
00553	Base Neutrals		,			
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	.ug/l	1

Laboratory Chronicle
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CAT No.	Analysis Name	Makkad		Analysis		Dilution	
	-	Method	Trial#	Date and Time	Analyst	Factor	
08238	BTEX (EPA 602)	EPA 602	1	11/02/2005 06:14	Kathie J Bowman	1	
00553	Base Neutrals	EPA 625	٦	11/04/2005 21:39	Brian K Graham		
08108	625 Water Extraction	DDN COF			brian k Granam	-1	
00100	025 Mater Extraction	EPA 625	1	10/31/2005 17:15	Olivia I Santiago	1	



Lancaster Laboratories Sample No. WW 4634922

MW-19 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 15:55

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00

Reported: 11/11/2005 at 10:43

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

197LE SDG#: LEC52-17

				As Received		
CAT	*		As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00307	Heterotrophic Plate Count	n.a.	. 120.	1.	cfu/ml	n.a.
	The plating was performed by Ma	arlaina Kohler	on 102805 at 120	00.		
00206	Total Suspended Solids	n.a.	23.2	3.0	mg/l	1
00212	Total Dissolved Solids	n.a.	620.	19.4	mg/1	1
00219	Nitrite Nitrogen	14797-65-0	0.060	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	0.56	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	0.88	0.11	mg/1	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	1
00228	Sulfate	14808-79-8	37.4	1.5	mg/1	5
07105	Volatile Headspace Hydrocarbon					
07106	Methane	74-82-8	19.	2.0	ug/l	1
07107	Ethane	74-84-0	N.D.	1.0	ug/l	1
07108	Ethene	74-85-1	N.D.	1.0	ug/l	1
07109	Propane	74-98-6	N.D.	1.0	ug/l	1
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	1,200.	60.	ug/l	100
07029	Benzene	71-43-2	N.D.	20.	ug/l	100
07030	Tolueņe	108-88-3	10,000.	20.	ug/l	100
07031	Ethylbenzene	100-41-4	200.	20.	ug/l	100
	The reporting limits were raise	d because samp	le dilution was	necessary to	-9/ -	100
	bring target compounds into the	calibration r	ange of the syst	em.		
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	5. J	1.	ug/l	1





Lancaster Laboratories Sample No. WW 4634922

MW-19 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 15:55

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00

RMT, Inc.

Reported: 11/11/2005 at 10:43

PO Box 8923 Madison WI 53708-8923

Discard: 12/12/2005

197LE SDG#: LEC52-17

CAT				Analysis		Dilution
No.	Analysis Name	Method	rrial#	Date and Time	Analyst	Factor
00307	Heterotrophic Plate Count	Std Meth 9215B 19th ed	1	10/30/2005 12:00	Marlaina E Kohler	n.a.
00206	Total Suspended Solids	EPA 160.2	1	11/01/2005 09:33	Yolunder Y Bunch	7
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00219	Nitrite Nitrogen	EPA 353.2	1	10/29/2005 07:50	Kristina E Kleintop	1
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 22:00	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	11/01/2005 18:30	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 10:57	Venia B McFadden	1.
00228	Sulfate	EPA 300.0	1	11/07/2005 19:12	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/04/2005 23:54	Robert I Pusch	1
08238	BTEX (EPA 602)	EPA 602	1	11/02/2005 16:50	Kathie J Bowman	100
00553	Base Neutrals	EPA 625	1	11/04/2005 22:28	Brian K Graham	100
08108	625 Water Extraction	EPA 625	1	10/31/2005 17:15	Olivia I Santiago	1
08263	Total Phos as P Prep (water)	EPA 365.1	ī	10/28/2005 16:45	Nancy J Shoop	1



Lancaster Laboratories Sample No. 4634923

MW-19-5 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 17:00

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00 Reported: 11/11/2005 at 10:43 RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

W195E

SDG#: LEC52-18

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00307	Heterotrophic Plate Count	n.a.	58.	1.	cfu/ml	n.a.
	The plating was performed by Ma A single mold colony was observ of this sample.					

			•			. 4
	A single mold colony was observed of this sample.	ved on one of t	the plates use	ed in the enumeration	on	
00206	Total Suspended Solids	n.a.	N.D.	3.0	mg/l	. 1
00212	Total Dissolved Solids	n.a.	144.	9.7	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1
00220	Nitrate Nitrogen	14797-55-8	0.38	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/l	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	1
00228	Sulfate	14808-79-8	12.8	1.5	mg/l	5
07105	Volatile Headspace Hydrocarbon		,			
07106	Methane	74-82-8	3.8 J	2.0	ug/l	1
07107	Ethane	74-84-0	N.D.	1.0	ug/l	1
07108	Ethene	74-85-1	Ń.D.	1.0	ug/l	1
07109	Propane	74-98-6	N.D.	1.0	ug/l	1
08238	BTEX (EPA 602)					,
05538	Total Xylenes	1330-20-7	37.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	
07030	Toluene	108-88-3	140.	0.2	ug/l	1 1
07031	Ethylbenzene	100-41-4	6.8	0.2	ug/l	1
00553	Base Neutrals					
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1

State of New Jersey Lab Certification No. PA011



Lancaster Laboratories, Inc. 2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. WW 4634923

MW-19-5 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 17:00

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00

Reported: 11/11/2005 at 10:43

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

W195E SDG#: LEC52-18

CAT	* **	. <del>"</del> ,		Analysis		m 2 9 × 4 1
No.	Analysis Name	Method	Trial#		Analyst	Dilution Factor
00307	Heterotrophic Plate Count	Std Meth 9215B 19th ed	1 1	10/30/2005 12:00	Marlaina E Kohler	n.a.
00206	Total Suspended Solids	EPA 160.2	1	11/01/2005 09:33	Yolunder Y Bunch	1
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00219	Nitrite Nitrogen	EPA 353.2	1	10/29/2005 07:51	Kristina E Kleintop	i
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 22:01	Kristina E Kleintop	ī
00221	Ammonia Nitrogen	EPA 350.2	1	11/01/2005 18:30	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 10:59	Venia B McFadden	ī
00228	Sulfate	EPA 300.0	1	11/07/2005 19:26	Shannon L Phillips	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/05/2005 00:10	Robert I Pusch	1
08238	BTEX (EPA 602)	EPA 602	1	11/02/2005 10:29	Kathie J Bowman	7
00553	Base Neutrals	EPA 625	1	11/04/2005 23:16	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	10/31/2005 17:15	Olivia I Santiago	1
08263	Total Phos as P Prep	EPA 365.1	1	10/28/2005 16:45	Nancy J Shoop	1



Lancaster Laboratories Sample No. WW 4634924

RB-01 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 18:00

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00 Reported: 11/11/2005 at 10:44

Discard: 12/12/2005

RMT, Inc. PO Box 8923

Madison WI 53708-8923

RB1MT SDG#: LEC52-19

				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
00307	Heterotrophic Plate Count	n.a.	N.D.	1.	cfu/ml	n.a.
	This result is an estimated con	unt. At least	one plate used t	o calculate		
	the result is outside the estal	plished countir	ng range of 30 to	300		
	colony forming units (cfu) per	dilution.				
	The sample was plated by Marla:	ina Kohler on 1	l0-28-05 at 1200.			
002.06	Total Suspended Solids	n.a.	N.D.	3.0	mg/l	1
00212	Total Dissolved Solids	n.a.	N.D.	9.7	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	mg/l	1.
00220	Nitrate Nitrogen	14797-55-8	N.D.	0.040	mg/l	1
00221	Ammonia Nitrogen	7664-41-7	N.D.	0.11	mg/l	1
00227	Total Phosphorus as P (water)	7723-14-0	N.D.	0.080	mg/l	i
00228	Sulfate	14808-79-8	N.D.	0.30	mg/l	ī
07105	Volatile Headspace Hydrocarbon	10	•	,		
07106	Methane	74-82-8	N.D.	2.0	ug/l	1
07107	Ethane	74-84-0	N.D.	1.0	ug/l	1
07108	Ethene	74-85-1	N.D.	1.0	ug/l	1
07109	Propane	74-98-6	N.D.	1.0	ug/l	1
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	·1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l ug/l	1 -
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1
					ug/ I	4 .
00553	Base Neutrals				*	
00669	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1.	ug/l	1





Lancaster Laboratories Sample No. WW 4634924

RB-01 Grab Water Sample L.E. Carpenter, NJ

Collected:10/27/2005 18:00

by JO

Account Number: 09322

Submitted: 10/28/2005 09:00 Reported: 11/11/2005 at 10:44

SDG#: LEC52-19

RMT, Inc. PO Box 8923

Discard: 12/12/2005

Madison WI 53708-8923

RB1MT

CAT		•		Analysis		Dilution
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
00307	Heterotrophic Plate Count	Std Meth 9215B 19th ed	i 1	10/30/2005 12:00	Marlaina E Kohler	n.a.
00206	Total Suspended Solids	EPA 160.2	1	11/01/2005 09:33	Yolunder Y Bunch	1
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00219	Nitrite Nitrogen	EPA 353.2	1	10/29/2005 07:52	Kristina E Kleintop	1 .
00220	Nitrate Nitrogen	EPA 353.2	1	11/09/2005 22:03	Kristina E Kleintop	1
00221	Ammonia Nitrogen	EPA 350.2	1	11/01/2005 18:30	Luz M Groff	1
00227	Total Phosphorus as P (water)	EPA 365.1	1	11/01/2005 11:00	Venia B McFadden	1
00228	Sulfate	EPA 300.0	1	11/07/2005 20:09	Shannon L Phillips	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	11/05/2005 00:26	Robert I Pusch	1
08238	BTEX (EPA 602)	EPA 602	1	11/02/2005 14:43	Kathie J Bowman	1
00553	Base Neutrals	EPA 625	1	11/05/2005 00:05	Brian K Graham	1
08108	625 Water Extraction	EPA 625	1	10/31/2005 17:15	Olivia I Santiago	1
08263	Total Phos as P Prep	EPA 365.1	1	10/28/2005 16:45	Nancy J Shoop	1



Lancaster Laboratories Sample No. WW 4634925

Trip Blank Water Sample L.E. Carpenter, NJ

Collected: n.a.

Submitted: 10/28/2005 09:00

Reported: 11/11/2005 at 10:44

Discard: 12/12/2005

TBLCR SDG#: LEC52-20TB\*

Account Number: 09322

RMT, Inc.

PO Box 8923

Madison WI 53708-8923

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08238	BTEX (EPA 602)					
05538	Total Xylenes	1330-20-7	N.D.	0.6	ug/l	1
07029	Benzene	71-43-2	N.D.	0.2	ug/l	1
07030	Toluene	108-88-3	N.D.	0.2	ug/l	1
07031	Ethylbenzene	100-41-4	N.D.	0.2	ug/l	1

T.a	ho	ra	+0	rv	Ch:	ror	٠.	$\sim 1 \cdot \epsilon$	_
T.10	$\mathbf{L}$	ביווי	1.0	1 V		f { } f		7 ' I 4	_

	paporacory chronicie								
CAT					Dilution				
<b>No.</b> 08238	Analysis Name BTEX (EPA 602)	Method EPA 602	Trial# 1	Date and Time 11/02/2005 02:42	<b>Analyst</b> Kathie J Bowman	Factor 1			



# Quality Control Summary

Client Name: RMT, Inc.

Group Number: 965112

Reported: 11/11/05 at 10:44 AM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

# Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 05301109102A	Sample	number(s):	4634918,46	34922-463	84924			
Total Phosphorus as P (water)	N.D.	0.080	mg/l	103	77729	89-110		
			<b>3</b> , -			05 110		
Batch number: 05302105101A	Sample	number(s):	4634918,46	34922-463	34924			
Nitrite Nitrogen	N.D.	0.015	mg/l	99		90-110		
Tele No. 10 properties								
Batch number: 05304WAC625			4634918-46	34924				
bis(2-Ethylhexyl)phthalate	N.D.	1.	ug/l	89	89	68-111	0	30
Batch number: 05305020601B	Campla		4674010 46	24000 466				
Total Suspended Solids	N.D.		4634918,46		34924			
rocar buspended borras	N.D.	3.0	mg/l	99		56-128		
Batch number: 05305021201A	Sample	number(e).	4634918,46	34933463	1001			
Total Dissolved Solids	N.D.	9.7	mg/l	106		80-120		
,		J.,	mg/ I	100		80-120		
Batch number: 05305022101A	Sample	number(s):	4634918,46	34922-463	14924			
Ammonia Nitrogen	N.D.	0.11	mg/l	98	97	91-100	1	1
			3,			J1 100	-	<u> </u>
Batch number: 05305A15A	Sample	number(s):	4634918-46	34925				
Total Xylenes	N.D.	0.6	ug/l	105	102	82-120	3 .	30
Benzene	N.D.	0.2	ug/l	103	100	86-119	3	30
Toluene	N.D.	0.2	ug/l	105	101	82-119	3	30
Ethylbenzene	N.D.	0.2	ug/l	105	103	81-119	3	30
Batch number: 053080019A								
Methane	Sample		4634918,46		4924			
Ethane	N.D.	2.0	ug/l	103		80-120		
Ethene	N.D.	1.0	ug/l	103		80-120		
Propane	N.D.	1.0	ug/l	108		80-120		
riopane	N.D.	1.0	ug/l	103		73-125		
Batch number: 05311401301B	Sample	number(s) ·	4634918,463	81022-162	1021			
Sulfate	N.D.	0.30	mg/l	97	4324	90-110		
		•	g/ 1	J 1		20-110		
Batch number: 05313106102A	Sample	number(s):	4634918,463	34922-463	4924			
Nitrate Nitrogen	N.D.	0.040	mq/1	97	.,23	89-110		
				- '		03-110		

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.





# Quality Control Summary

Client Name: RMT, Inc.

Group Number: 965112

Reported: 11/11/05 at 10:44 AM

# Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD
Batch number: 05301109102A Total Phosphorus as P (water)	Sample 113*	number(	(s): 4634918 90-110	,46349	22-4634	924 N.D.	N.D.	0 (1)	3
Batch number: 05302105101A Nitrite Nitrogen	Sample 88*	number(	s): 4634918 90-110	,46349	22-4634	92 <b>4</b> 0.040 J	0.043 J	5 (1)	20
Batch number: 05305020601B Total Suspended Solids	Sample	number(	s): 4634918	,46349	22-4634	924 39.2	34.8	12 (1)	20
Batch number: 05305021201A Total Dissolved Solids	Sample 97	number( 97	s): 4634918 60-140	,463 <b>4</b> 9; 0	22-4634 5	924 940.	922.	2	5
Batch number: 05305022101A Ammonia Nitrogen	Sample	number(	s): 4634918	, 463492	22-4634	924 32.8	33.0	. 1	2
Batch number: 05305A15A Total Xylenes Benzene Toluene Ethylbenzene	Sample 108 105 108 109	number( 107 105 107 107	s): 4634918 80-134 78-131 78-129 75-133	-463492 2 1 2 2	30 30 30 30 30				
Batch number: 053080019A Methane Ethane Ethene Propane	Sample 105 102 108 105	number( 100 105 113 106	s): 4634918 63-124 63-127 69-126 56-136	, 463492 4 3 4	22-46349 20 20 20 20 20	924			
Batch number: 05311401301B Sulfate	Sample 98	number(	s): 4634918, 90-110	, 463492	2-46349	924 12.8	12.3	4* (1)	3
Batch number: 05313106102A Nitrate Nitrogen	Sample 85*	number(	s): 4634918, 90-110	463492	2-46349	924 N.D.	N.D.	0 (1)	2

# Surrogate Quality Control

Analysis Name: Base Neutrals Batch number: 05304WAC625

Batch num	per: 05304WAC625 Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	
4634918	73	91	8.4	
4634919	78	88	81	
4634920	74	85	77	•
4634921	80	. 85	79	

- \*- Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Lancaster Laboratories, Inc. 2425 New Holland Pike PO Box 12425 Lancaster, PA 17605-2425 717-656-2300 Fax: 717-656-2681



Page 3 of 3

# Quality Control Summary

Client 1	Name: RMT, Inc. d: 11/11/05 at	10.44 AM	Group Number: 965112							
oporce.	u. 11/11/05 ac		te Quality Control	<u> </u>						
4634922	78 ·	90	81							
4634923	73	83	73							
4634924	78	88 -	73 77							
Blank	76	84								
LCS	85	89	99							
LCSD	82	89	90 84							
Limits:	48-117	62-111	45-132							
Ama Ausada a			10 102							
Analysis I	Name: BTEX (EPA 602	2) .								
parch num	ber: 05305A15A	·								
	Trifluorotoluen	e-r								
4634918	99	· <u></u>								
4634919	99									
4634920	100			*						
4634921	99	-								
4634922	98									
4634923	98									
4634924	101		•							
4634925	99									
Blank	100									
LCS	98									
LCSD	98									
MS .	99									
MSD	100									
<del></del>										
Limits:	69-129									
Analysis N	Name: Volatile Head	space Hydrocarbon	•							
Batch numb	per: 053080019A									
	Propene									
4634918	101									
4634922	101									
4634923	98									
4634924	100									
Blank	113			•						
LCS	108									
MS	98									
MSD	104			i e e e e e e e e e e e e e e e e e e e						
Limits:	48-132									
	+									

### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



# Analysis Request / Environmental Services Chain of Custody

4	Lancaster	Laboratories	5
16.	Where quality is a	science.	_

For Lancaster Laboratories use only

Acct. # 9322 Group# 945//2 Sample # 46349/8-25 COC # 0104420

Client: RMT, Inc	A						$\overline{}$	A SECTION AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSO	7.47.42	(j. 1348)	5-6-6-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-	Markey Syl	ARTERINA DE LA COMPANSIONA DE LA COMPA	V 1 12	
roject Name#: LE Carpenter/GS	Acct.#				4		(5)					7		For Lab Use FSC: SCR #:	Only
Toject Name/#: CE Carpenter (6)	PWSIC							/ /				/. /	12/	SCR #:	
roject Manager: Nick Clevett	P.O.#:		<del></del>				/			/ ,	/ /				
eampler: <u>50/EV</u>	Quote :	#:						/: ,	/ /	/ /		/,,/	w/		
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						<b>/</b> ⁵	\$\^	17	Y.	Y 1.	7 W	W	Remarks		
MW-19-7	1927/05	1/35	X	X	14	X-				工		<b>,</b>			
MW-19-9D	1 /	1200	7		<u> </u>	14	$\vdash$						<b> </b>	<del></del>	
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SW-R-2		1400			5				X		X		ļ		
MW-19		1555	$\Pi^{-}$		14	X-					->				
MW-19-5		1700	11		14	X-				#	<u></u>	.		·	
RB-1	1		$t \vdash$	<del>           </del>	ľú	份			+	+	<del>                                     </del>			<del> </del>	<del></del>
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sh TAT is subject to Lancaster Laboratories apple to results are needed:	oval and surch	irge.)	10	4 CVB	MX	<u> 15vc</u>	L	- 19	27/0	s 1845	<u> </u>	Fe	d Ex	19/27/	65
sh results requested by (please circle): P	none Fax	E-mail	Reli	nquished b	y:			D	ate	Time	Receiv	ed by:		Date	Ti
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QC Summary Type VI (Raw Data) Yes No		Reli	Relinquished by:			n	Date Time	Time	e Received by:			Date	Ti		
ype I (Tier I) GLP Site-specific QC required? Yes No.			- ·		•							Ju wy.		3.0	1
ype II (Tier II) Other (If yes, indicate QC sample and submit triplicate volume.)				Relinquished by:			7	ate	Time	B Received by:				<del>,  </del>	
Type III (NJ Red. Del.) Internal Chain of Custody required? Yes No Type IV (CLP)				-deserted p	· .			<u>ן "</u>	~~~		1 1 7	-		0 10-	3 Ti
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Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.